



BOBBY JINDAL  
GOVERNOR

HAROLD LEGGETT, Ph.D.  
SECRETARY

## State of Louisiana

JUL 23 2009

DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL SERVICES

CERTIFIED MAIL 70051820000223608363 -RETURN RECEIPT REQUESTED

File No.: LA0003301  
AI No.: 1409  
Activity No.: PER20060028

Ms. Sharon Cole, Site Director  
The Dow Chemical Company  
Louisiana Operations  
P.O. Box 150  
Plaquemine, Louisiana 70765-0150

RE: Draft Louisiana Pollutant Discharge Elimination System (LPDES) permit to discharge treated process wastewater, utility wastewaters, sanitary wastewater, and stormwater runoff to the Mississippi River (Outfalls 001 and 002) from an existing organic chemical manufacturing plant located at 21255 Louisiana Highway 1 in Plaquemine, Iberville and West Baton Rouge Parishes.

Dear Ms. Cole:

The Department of Environmental Quality proposes to reissue a LPDES permit with the effluent limitations, monitoring requirements, and special conditions listed in the attached DRAFT PERMIT. Please note that this is a DRAFT PERMIT only and as such does not grant any authorization to discharge. Authorization to discharge in accordance with this permitting action will only be granted after all requirements described herein are satisfied and by the subsequent issuance of a FINAL PERMIT. Upon the effective date of the FINAL PERMIT, the FINAL PERMIT shall replace the previously effective LPDES permits LA0003301, LA0116602, and LAG670070.

This Office will publish a public notice one time in a local newspaper of general circulation and in the Office of Environmental Services Public Notice Mailing List. A copy of the public notice containing the specific requirements for commenting on this draft permit action will be sent under separate cover at the time the public notice is arranged. In accordance with LAC 33:IX.6521.A, the applicant shall receive and is responsible for paying the invoice(s) from the above mentioned newspaper(s). LAC 33:IX.6521.A states: "...the costs of publication shall be borne by the applicant."

The invoice, fee rating sheet, and a copy of the fee regulations will be sent under a separate cover letter as applicable. Please note that a copy of the fee rating worksheet is also attached to this draft permit. A copy of the entire Louisiana Water Quality Regulations may be obtained from the DEQ Office of Environmental Assessment, Post Office Box 4314, Baton Rouge, Louisiana 70821-4314, (225) 219-3236.

The Dow Chemical Company  
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Pursuant to LAC 33:IX.1309.I, LAC 33:IX.6509.A.1, and LAC 33:I.1701, you must pay any outstanding fees to the Department. Therefore, you are encouraged to verify the facility's fee status by contacting LDEQ's Office of Management and Finance, Financial Services Division (225) 219-3863. Failure to pay in the manner and time prescribed could result in applicable enforcement actions as prescribed in the Environmental Quality Act, including, but not limited to revocation or suspension of the applicable permit, and/or assessment of a civil penalty against you.

For sanitary treatment plants, the plans and specifications must be approved by the Department of Health and Hospitals, Office of Public Health, P.O. Box 4489, Baton Rouge, Louisiana 70821-4489, (225) 342-7395.

Should you have any questions concerning any part of the DRAFT PERMIT, public notice requirements, or fee, please feel free to contact Brian Muller, USEPA Region 6, Water Quality Protection Division, 1445 Ross Avenue, Dallas, Texas 75202, or by telephone at (214) 665-7167. You may also contact Sonja Loyd, LDEQ, Office of Environmental Services, at the address on the preceding page, or by telephone at (225) 219-3090. To ensure that all correspondence regarding this facility is properly filed into the Department's Electronic Document Management System, you must reference your Agency Interest number 1409 and the LPDES permit number LA0003301 on all future correspondence to this Department, including Discharge Monitoring Reports.

Sincerely,



Jesse Chang  
Environmental Scientist Manager  
Industrial Water Permits

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Attachment(s): draft permit, fact sheet, and fee sheet:

c: Sonja Loyd  
Water Permits Division

IO-W File

cc: For Public Notice  
Public Participation  
Office of Environmental Assistance

Supervisor, Louisiana Field Office  
U.S. Fish & Wildlife Service

Ed Keough  
The Dow Chemical Company  
keough.cb@dow.com

Gayle Denino  
Office of Management & Finance

Permit Compliance Unit  
Capital Regional Office  
Office of Environmental Compliance

Laura Thompson  
Water Permits Division

Brian Mueller (6WQ-PP)  
U.S. EPA, Region 6  
mueller.brian@epamail.epa.gov

**DRAFT**



PERMIT NUMBER  
LA0003301  
AI No.: 1409

OFFICE OF ENVIRONMENTAL SERVICES  
**Water Discharge Permit**

Pursuant to the Clean Water Act, as amended (33 U.S.C. 1251 et seq.), and the Louisiana Environmental Quality Act, as amended (La. R. S. 30:2001 et seq.), rules and regulations effective or promulgated under the authority of said Acts, and in reliance on statements and representations heretofore made in the application, a Louisiana Pollutant Discharge Elimination System permit is issued authorizing

The Dow Chemical Company  
Louisiana Operations  
P.O. Box 150  
Plaquemine, Louisiana 70765-0150

Type Facility: organic chemical manufacturing plant  
Location: 21255 Louisiana Highway 1 in Plaquemine  
Iberville/West Baton Rouge Parishes  
Receiving Waters: Mississippi River (Outfalls 001 and 002) - Subsegment No. 070301

to discharge in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III attached hereto.

This permit shall become effective on \_\_\_\_\_

This permit and the authorization to discharge shall expire five (5) years from the effective date of the permit.

Issued on \_\_\_\_\_

\_\_\_\_\_  
Cheryl Sonnier Nolan  
Assistant Secretary

**DRAFT**

Part I  
Permit No. Draft LA0003301

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# **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Outfall 001 (Final) (estimated total outfall flow is 597 MGD), this final outfall consists of the continuous discharge of CWR Canal A to the Mississippi River. CWR Canal A receives flow from Canals B, C, D, E, and F, and includes the wastewaters described in all internal outfalls within the manufacturing areas, as well as, stormwater runoff, once through cooling water, and utility wastewater flows (i.e., hydrostatic test water, hydroblast water, deluge test water, fire hydrant test water, condensate, utility discharge from turnaround activities, de-ionized (DI) water, air conditioner condensate, cooling tower blowdown, regeneration streams, water treatment discharges, steam traps, and clean equipment/slab wash down).

Such discharges shall be limited and monitored by the permittee as specified below:

<u><b>Effluent Characteristic</b></u>	<u><b>STORET Code</b></u>	<u><b>Discharge Limitations</b></u>				<u><b>Monitoring Requirements</b></u>	
		<u><b>Other Units</b></u> <u><b>(lbs/day, UNLESS STATED) (ug/L, UNLESS STATED)</b></u>				<u><b>Measurement Frequency</b></u>	<u><b>Sample Type</b></u>
<u><b>CONVENTIONAL AND NONCONVENTIONAL</b></u>		<u><b>Monthly Average</b></u>	<u><b>Daily Maximum</b></u>	<u><b>Monthly Average</b></u>	<u><b>Daily Maximum</b></u>		
Flow-MGD	50050	Report	Report	---	---	Continuous	Pump Curve (*5)
pH Range Excursions (Continuous Monitoring), Number of Events > 60 Minutes	82581	---	0 (*1)	---	---	Continuous	Recorder
pH Range Excursions (Continuous Monitoring), Monthly Total Accumulated Time in Minutes	82582	---	446 (*1)	---	---	Continuous	Recorder
pH Minimum/Maximum Values (Standard Units)	00400	---	---	Report (Min)	Report (Max)	Continuous	Recorder
Chlorides	82209	-	-	Report	Report	1/Year	Grab
<u><b>Volatile Compounds</b></u>							
Benzene	34030	-	-	Report	Report	1/Year	Grab
Chloroform	32106	-	-	Report	Report	1/Year	Grab
1,2-Dichloropropane	34541	-	-	Report	Report	1/Year	Grab
Methylene Chloride	34423	-	-	Report	Report	1/Year	Grab
Tetrachloroethylene	34475	-	-	Report	Report	1/Year	Grab
1,1,2,2-Tetrachloroethane	34516	-	-	Report	Report	1/Year	Grab
Trichloroethylene	39180	-	-	Report	Report	1/Year	Grab
Vinyl Chloride	39175	-	-	Report	Report	1/Year	Grab
<u><b>Base Neutral Compounds</b></u>							
Acenaphthene	34205	-	-	Report	Report	1/Year	Grab
Acenaphthylene	34200	-	-	Report	Report	1/Year	Grab
Anthracene	34220	-	-	Report	Report	1/Year	Grab
Benzo(a)anthracene	34526	-	-	Report	Report	1/Year	Grab
Benzo(a)pyrene	34247	-	-	Report	Report	1/Year	Grab
3,4-Benzofluoranthene	34230	-	-	Report	Report	1/Year	Grab
Benzo(k)fluoranthene	34242	-	-	Report	Report	1/Year	Grab
Chrysene	34320	-	-	Report	Report	1/Year	Grab



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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 001 continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
		(lb/day, unless stated)		Other Units		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	(ug/l, unless stated) Monthly Average	Daily Maximum		
Fluoranthene	34376	-	-	Report	Report	1/Year	Grab
Flourene	34381	-	-	Report	Report	1/Year	Grab
Hexachlorobenzene	39700	0.5	1.18	-	-	1/Week	Grab
Hexachlorobutadiene	34391	-	-	Report	Report	1/Year	Grab
Naphthalene	34696	-	-	Report	Report	1/Year	Grab
Phenanthrene	34461	-	-	Report	Report	1/Year	Grab
Pyrene	34469	-	-	Report	Report	1/Year	Grab

**WHOLE EFFLUENT TOXICITY TESTING (ACUTE) (\*2)**

Parameter	Storet Code (*3)	(Percent %, UNLESS STATED)			Measurement Frequency (*4)	Sample Type
		Monthly Average Minimum	48-Hour Minimum	Monthly Average		
NOEC, Pass/Fail [0/1], Lethality, Static Renewal, 48-Hour Acute. <u>Pimephales promelas</u>	TEM6C	Report	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%], Lethality, Static Renewal, 48-Hour Acute <u>Pimephales promelas</u>	TOM6C	Report	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%], Coefficient of Variation, Static Renewal, 48-Hour Acute, <u>Pimephales promelas</u>	TQM6C	Report	Report	Report	1/quarter	24-hr. Composite
NOEC, Pass/Fail [0/1], Lethality, Static Renewal, 48-Hour Acute <u>Daphnia pulex</u>	TEM3D	Report	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%], Lethality, Static Renewal, 48-Hour Acute <u>Daphnia pulex</u>	TOM3D	Report	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%], Coefficient of Variation, Static Renewal, 48-Hour Acute, <u>Daphnia pulex</u>	TQM3D	Report	Report	Report	1/quarter	24-hr. Composite

There shall be no discharge of floating solids or visible foam in other than trace amounts.

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 001 continued)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 001, at the point of discharge from the Intake to the Cooling Water Return pump station prior to pumping the cooling water over the levee and into the Mississippi River at Latitude 30°18'35", Longitude 91°13'48".

FOOTNOTE(S):

- (\*1) The pH shall be within the range of 6.0 - 9.0 standard units at all times subject to the continuous monitoring pH range excursion provisions at Part II.I.
- (\*2) See Part II.P for biomonitoring requirements.
- (\*3) Given test method or other, as approved at 40 CFR part 136.
- (\*4) Additional toxicity samples may be required upon usage of chlorine and/or biofouling agents if the quarterly sample was not conducted during these conditions.
- (\*5) The daily flow is estimated by using best engineering judgement.

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 101 (112) (Canal B) (estimated total outfall flow is 106 MGD), this internal outfall consists of the continuous discharge of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, discharges from Internal Outfalls 121 (931) and 111 (1081), and discharges from neighboring company PolyOne. This internal outfall discharges to CWR Canal A and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		Other Units					
		(lb/day; unless stated)		(uq/l, unless stated)			
<u>Conventional/</u>	Storet	Monthly	Daily	Monthly	Daily	Measurement	Sample Type
<u>Nonconventional</u>	Code	Average	Maximum	Average	Maximum	Frequency	
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Week	Estimate
TOC - mg/l	00680	-	-	-	50	1/Week	Grab
Oil and Grease-mg/l	03582	-	-	-	15	1/Week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 101 (112), at the point of discharge from the southern end of CWR Canal B, prior to mixing with other waters in CWR Canal A at Latitude 30°18'43", Longitude 91°13'59".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 111 (1081) (Poly A) (estimated total outfall flow is 2.0 MGD), this internal outfall is a virtual outfall consisting of the continuous discharge of OCPSF process wastewater and OCPSF process area stormwater, once through cooling water, and utility wastewater from the Polyethylene A Plant. The sampling locations discharge to CWR Canal B, through Internal Outfall 101 (112), then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirement</u>	
		<u>Other Units</u>					
<u>Conventional/ Nonconventional</u>	<u>Storet Code</u>	(lb/day, unless stated) <u>Monthly Average</u>	<u>Daily Maximum</u>	(ug/l, unless stated) <u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Typ</u>
<u>Conventional</u>							
BOD <sub>5</sub>	00310	156	371	-	-	1/Quarter	Grab
TSS	00530	215	618	-	-	1/Quarter	Grab
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Week	Estimate
<u>Volatile Compounds</u>							
Acrylonitrile	34215	0.35	0.87	-	-	1/Year	Grab
Benzene	34030	0.21	0.5	-	-	1/Year	Grab
Carbon							
Tetrachloride	32102	0.53	1.42	-	-	1/Year	Grab
Chlorobenzene	34301	0.53	1.42	-	-	1/Year	Grab
Chloroethane	85811	0.41	1.1	-	-	1/Year	Grab
Chloroform (*1)	32106	1.85	5.38	-	-	1/Quarter	Grab
1,1-Dichloroethane	34496	0.08	0.22	-	-	1/Year	Grab
1,2-Dichloroethane	32103	0.67	2.14	-	-	1/Year	Grab
1,1-Dichloroethylene	34501	0.08	0.22	-	-	1/Year	Grab
1,2-Dichloropropane	34541	0.73	2.97	-	-	1/Year	Grab
1,3-Dichloropropylene	34561	0.73	2.97	-	-	1/Year	Grab
Ethylbenzene	34371	0.53	1.42	-	-	1/Year	Grab
Methyl Chloride	34418	0.41	1.1	-	-	1/Year	Grab
Methylene Chloride	34423	0.14	0.64	-	-	1/Year	Grab
Tetrachloroethylene	34475	0.19	0.61	-	-	1/Year	Grab
Toluene	34010	0.11	0.28	-	-	1/Year	Grab
1,2-trans-Dichloroethylene	34546	0.09	0.25	-	-	1/Year	Grab
1,1,1-Trichloroethane	34506	0.08	0.22	-	-	1/Year	Grab
1,1,2-Trichloroethane	34511	0.12	0.48	-	-	1/Year	Grab
Trichloroethylene	39180	0.1	0.26	-	-	1/Year	Grab
Vinyl Chloride	39175	0.36	0.64	-	-	1/Year	Grab
<u>Acid Compounds</u>							
2,4-Dimethylphenol	34606	0.07	0.18	-	-	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 111 continued)

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
Storet Code		(lb/day, unless stated)		Other Units		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
4,6-Dinitro-o-cresol	34657	0.29	1.04	-	-	1/Year	Grab
2,4-Dinitrophenol	34616	4.51	16	-	-	1/Year	Grab
2-Nitrophenol	34591	0.24	0.86	-	-	1/Year	Grab
4-Nitrophenol	34646	0.61	2.15	-	-	1/Year	Grab
Phenol	34694	0.07	0.18	-	-	1/Year	Grab
<b><u>Base Neutral Compounds</u></b>							
Acenaphthene	34205	0.07	0.18	-	-	1/Year	Grab
Acenaphthylene	34200	0.07	0.18	-	-	1/Year	Grab
Anthracene	34220	0.07	0.18	-	-	1/Year	Grab
Benzo(a)anthracene	34526	0.07	0.18	-	-	1/Year	Grab
Benzo(a)pyrene	34247	0.08	0.18	-	-	1/Year	Grab
3,4-Benzofluoranthene	34230	0.08	0.18	-	-	1/Year	Grab
Benzo(k)fluoranthene	34242	0.07	0.18	-	-	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	0.36	0.96	-	-	1/Year	Grab
Chrysene	34320	0.07	0.18	-	-	1/Year	Grab
1,2-Dichlorobenzene	34536	0.73	2.97	-	-	1/Year	Grab
1,3-Dichlorobenzene	34566	0.53	1.42	-	-	1/Year	Grab
1,4-Dichlorobenzene	34571	0.53	1.42	-	-	1/Year	Grab
Diethyl phthalate	34336	0.17	0.42	-	-	1/Year	Grab
Dimethyl phthalate	34341	0.07	0.18	-	-	1/Year	Grab
Di-n-butyl phthalate	39110	0.08	0.16	-	-	1/Year	Grab
Fluoranthene	34376	0.08	0.2	-	-	1/Year	Grab
Fluorene	34381	0.07	0.18	-	-	1/Year	Grab
Hexachlorobenzene	39700	0.73	2.97	-	-	1/Year	Grab
Hexachlorobutadiene	34391	0.53	1.42	-	-	1/Year	Grab
Hexachloroethane	34396	0.73	2.97	-	-	1/Year	Grab
Naphthalene	34696	0.07	0.18	-	-	1/Year	Grab
Nitrobenzene	34447	8.36	23.9	-	-	1/Year	Grab
Phenanthrene	34461	0.07	0.18	-	-	1/Year	Grab
Pyrene	34469	0.08	0.18	-	-	1/Year	Grab
1,2,4-Trichlorobenzene	34551	0.73	2.97	-	-	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 111 (1081), the summation of the flows from Sampling Locations 1031, 1041, 1051, 1061, and 1071. Samples shall be flow weighted by sample location. Internal Outfall consists of five sampling locations. Sampling Location 1031 (North side at overflow weir), Sampling Location 1041 (Northeast side at overflow weir), Sampling Location 1051 (Middle of block at swimming pool overflow weir), Sampling Location 1061 (Southeast corner of block in concrete ditch), and Sampling Location 1071 (Middle of block at SK-120G skimmer). All are sampled before discharge from the Polyethylene A Plant in Block 8, prior to mixing with other waters in CWR Canal B. The virtual outfall coordinates are Latitude 30°18'58", Longitude 91°13'38".

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 111 continued)

FOOTNOTE(S):

- (\*1) The monitoring frequency for chloroform shall be returned from 1/quarter to 1/year if the permittee submits one year of sample data (twelve consecutive samples) which reflect discharges that meet the permit limit. The permittee shall include as a statement in the comments section on the first DMR submitted following fulfillment of this provision indicating that the data requirement has been satisfied. The permittee shall submit the data verifying compliance with the permit limits within six (6) months following the monitoring frequency reduction.

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 121 (931) (Poly B) (estimated total outfall flow is 0.362 MGD), this internal outfall consists of the continuous discharge of OCPSF process wastewater, OCPSF process area stormwater, once through cooling water, and utility wastewater from the Polyethylene B Plant. This internal outfall discharges to CWR Canal B, through Internal Outfall 101 (112), and then to Outfall 001

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		Other Units					
<u>Conventional/</u> <u>Nonconventional</u>	Storet Code	(lb/day, unless stated) Monthly Average	Daily Maximum	(ug/l, unless stated) Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
<u>Conventional</u>							
BOD <sub>5</sub>	00310	63	137	-	-	1/Quarter	Grab
TSS	00530	88	237	-	-	1/Quarter	Grab
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Week	Estimate
<u>Volatile Compounds</u>							
Acrylonitrile	34215	0.14	0.35	-	-	1/Year	Grab
Benzene	34030	0.09	0.2	-	-	1/Year	Grab
Carbon Tetrachloride	32102	0.22	0.58	-	-	1/Year	Grab
Chlorobenzene	34301	0.22	0.58	-	-	1/Year	Grab
Chloroethane	85811	0.17	0.45	-	-	1/Year	Grab
Chloroform	32106	0.17	0.49	-	-	1/Year	Grab
1,1-Dichloroethane	34496	0.03	0.09	-	-	1/Year	Grab
1,2-Dichloroethane	32103	0.27	0.87	-	-	1/Year	Grab
1,1-Dichloroethylene	34501	0.03	0.09	-	-	1/Year	Grab
1,2-Dichloropropane	34541	0.3	1.21	-	-	1/Year	Grab
1,3-Dichloropropylene	34561	0.3	1.21	-	-	1/Year	Grab
Ethylbenzene	34371	0.22	0.58	-	-	1/Year	Grab
Methyl Chloride	34418	0.17	0.45	-	-	1/Year	Grab
Methylene Chloride	34423	0.06	0.26	-	-	1/Year	Grab
Tetrachloroethylene	34475	0.08	0.25	-	-	1/Year	Grab
Toluene	34010	0.04	0.11	-	-	1/Year	Grab
1,2-trans-Dichloroethylene	34546	0.04	0.1	-	-	1/Year	Grab
1,1,1-Trichloroethane	34506	0.03	0.09	-	-	1/Year	Grab
1,1,2-Trichloroethane	34511	0.05	0.19	-	-	1/Year	Grab
Trichloroethylene	39180	0.04	0.11	-	-	1/Year	Grab
Vinyl Chloride	39175	0.15	0.26	-	-	1/Year	Grab
<u>Acid Compounds</u>							
2,4-Dimethylphenol	34606	0.03	0.07	-	-	1/Year	Grab
4,6-Dinitro-o-cresol	34657	0.12	0.42	-	-	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 121 continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
		(lb/day, unless stated)		Other Units (ug/l, unless stated)		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
2,4-Dinitrophenol	34616	1.83	6.51	-	-	1/Year	Grab
2-Nitrophenol	34591	0.1	0.35	-	-	1/Year	Grab
4-Nitrophenol	34646	0.25	0.87	-	-	1/Year	Grab
Phenol	34694	0.03	0.07	-	-	1/Year	Grab
<b>Base Neutral Compounds</b>							
Acenaphthene	34205	0.03	0.07	-	-	1/Year	Grab
Acenaphthylene	34200	0.03	0.07	-	-	1/Year	Grab
Anthracene	34220	0.03	0.07	-	-	1/Year	Grab
Benzo(a)anthracene	34526	0.03	0.07	-	-	1/Year	Grab
Benzo(a)pyrene	34247	0.03	0.07	-	-	1/Year	Grab
3,4-Benzofluoranthene	34230	0.03	0.07	-	-	1/Year	Grab
Benzo(k)fluoranthene	34242	0.03	0.07	-	-	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	0.14	0.39	-	-	1/Year	Grab
Chrysene	34320	0.03	0.07	-	-	1/Year	Grab
1,2-Dichlorobenzene	34536	0.3	1.21	-	-	1/Year	Grab
1,3-Dichlorobenzene	34566	0.22	0.58	-	-	1/Year	Grab
1,4-Dichlorobenzene	34571	0.22	0.58	-	-	1/Year	Grab
Diethyl phthalate	34336	0.07	0.17	-	-	1/Year	Grab
Dimethyl phthalate	34341	0.03	0.07	-	-	1/Year	Grab
Di-n-butyl phthalate	39110	0.03	0.07	-	-	1/Year	Grab
Fluoranthene	34376	0.03	0.08	-	-	1/Year	Grab
Fluorene	34381	0.03	0.07	-	-	1/Year	Grab
Hexachlorobenzene	39700	0.30	1.21	-	-	1/Year	Grab
Hexachlorobutadiene	34391	0.22	0.58	-	-	1/Year	Grab
Hexachloroethane	34396	0.3	1.21	-	-	1/Year	Grab
Naphthalene	34696	0.03	0.07	-	-	1/Year	Grab
Nitrobenzene	34447	3.4	9.72	-	-	1/Year	Grab
Phenanthrene	34461	0.03	0.07	-	-	1/Year	Grab
Pyrene	34469	0.03	0.07	-	-	1/Year	Grab
1,2,4-Trichlorobenzene	34551	0.3	1.21	-	-	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 121 (931), this internal outfall consists of two components which discharge separately at the southeast corner of the Polyethylene B Plant, just west of the fence line in Block 9, prior to mixing with other waters in CWR Canal B. Location 121A is sampled at the effluent for pit 7 and 121B is sampled on the north side of the plant at pit 32. The virtual Internal outfall coordinates are Latitude 30°19'03", Longitude 91°13'38".



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# **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)**

During the period beginning the effective date and lasting through cessation of process wastewater discharges from the Ethylene Dichloride manufacturing operations (\*1) the permittee is authorized to discharge from:

Internal Outfall 201 (521) (Solvents) (Phase I) (estimated total outfall flow is 2.09 MGD), this internal outfall consists of the continuous discharge of non-categorical process wastewater, once through cooling water, utility wastewater, and non-process area stormwater from the Solvents/EDC I Plant. This internal outfall discharges to CWR Canal A and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u><b>Effluent Characteristic</b></u>		<u><b>Discharge Limitations</b></u>				<u><b>Monitoring Requirements</b></u>	
<u><b>Conventional/ Nonconventional Nonconventional</b></u>	<u><b>Storet Code</b></u>	<u><b>(lb/day, unless stated)</b></u>		<u><b>Other Units (ug/l, unless stated)</b></u>		<u><b>Measurement Frequency</b></u>	<u><b>Sample Type</b></u>
		<u><b>Monthly Average</b></u>	<u><b>Daily Maximum</b></u>	<u><b>Monthly Average</b></u>	<u><b>Daily Maximum</b></u>		
Flow – MGD	50050	Report	Report	-	-	1/Week	Estimate
<u><b>Volatile Compounds</b></u>							
1,2-Dichloroethane	32103	-	-	-	574	1/Week	Grab
Tetrachloroethylene	34475	-	-	-	164	1/Week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 201 (521), at the point of discharge from the Solvents/EDC I Plant TTU lined ditch, from a catwalk in the northeast corner of Block 15, prior to mixing with other waters in CWR Canal A at Latitude 30°18'52", Longitude 91°14'00".

## **FOOTNOTE(S):**

- (\*1) The permittee shall notify the Office of Environmental Services, the Office of Environmental Compliance – Permit Compliance Unit, and the Capital Regional Office in writing at least 30 days prior to discharging under the Phase II conditions.

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning cessation of process wastewater discharges from the Ethylene Dichloride manufacturing operations and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 201 (521) (Solvents) (Phase II) (estimated total outfall flow is 2.09 MGD), this internal outfall consists of the continuous discharge of non-categorical process wastewater, once through cooling water, utility wastewater, and non-process area stormwater from the Solvents/EDC I Plant. This internal outfall discharges to CWR Canal A and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
<u>Conventional/ Nonconventional</u>	Storet Code	(lb/day, unless stated)		Other Units (ug/l, unless stated)		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
<u>Nonconventional</u> Flow -- MGD	50050	Report	Report	-	-	1/Week	Estimate
<u>Volatile Compounds</u>							
1,2-Dichloroethane	32103	-	-	-	574	1/Year	Grab
Tetrachloroethylene	34475	-	-	-	164	1/Week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 201 (521), at the point of discharge from the Solvents/EDC I Plant TTU lined ditch, from a catwalk in the northeast corner of Block 15, prior to mixing with other waters in CWR Canal A at Latitude 30°18'52", Longitude 91°14'00".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through cessation of process wastewater discharges from the Ethylene Dichloride manufacturing operations (\*1) the permittee is authorized to discharge from:

Internal Outfall 301 (114) (Canal D) (Phase I) (estimated total outfall flow is 61.9 MGD), this internal outfall consists of the continuous discharge of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, post first flush OCPSF stormwater, and discharges from Internal Outfalls 311 (531). This internal outfall discharges to CWR Canal A and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Storet Code</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		<u>Other Units</u>				<u>Measurement Frequency</u>	<u>Sample Type</u>
<u>Conventional/Nonconventional</u>		(lb/day, unless stated)		(ug/l, unless stated)			
		<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>		
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Week	Estimate
TOC - mg/l	00680	-	-	-	50	1/Week	Grab
Oil and Grease-mg/l	03582	-	-	-	15	1/Week	Grab
1,2-Dichloroethane	32103	-	-	-	574	1/Week	Grab
1,2-Dichloropropane	34541	-	-	-	794	1/Week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 301 (114), at the point of discharge from the southern end of CWR Canal D, prior to mixing with other waters in CWR Canal A at Latitude 30°18'51", Longitude 91°14'10".

## FOOTNOTE(S):

- (\*1) The permittee shall notify the Office of Environmental Services, the Office of Environmental Compliance – Permit Compliance Unit, and the Capital Regional Office in writing at least 30 days prior to discharging under the Phase II conditions.

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning cessation of process wastewater discharges from the Ethylene Dichloride manufacturing operations and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 301 (114) (Canal D) (Phase II) (estimated total outfall flow is 61.9 MGD), this internal outfall consists of the continuous discharge of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, post first flush OCPSF stormwater, and discharges from Internal Outfalls 311 (531). This internal outfall discharges to CWR Canal A and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		Other Units					
		(lb/day, unless stated)		(ug/l, unless stated)			
<u>Conventional/</u>	Storet	Monthly	Daily	Monthly	Daily	Measurement	
<u>Nonconventional</u>	Code	Average	Maximum	Average	Maximum	Frequency	Sample Type
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Week	Estimate
TOC - mg/l	00680	-	-	-	55	1/Week	Grab
1,2-Dichloroethane	32103	-	-	-	574	1/Year	Grab
1,2-Dichloropropane	34541	-	-	-	794	1/Week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 301 (114), at the point of discharge from the southern end of CWR Canal D, prior to mixing with other waters in CWR Canal A at Latitude 30°18'51", Longitude 91°14'10".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through cessation of process wastewater discharges from the Ethylene Dichloride manufacturing operations (\*1) the permittee is authorized to discharge from:

Internal Outfall 311 (531) (Solvents) (Phase I) (estimated total outfall flow is 8.45 MGD), this internal outfall consists of the continuous discharge of OCPSP process wastewater, OCPSP process area stormwater, non-categorical process wastewater, recovered groundwater, once through cooling water, and utility wastewater from the Solvents/EDC I Plant. This internal outfall discharges to CWR Canal D, through Internal Outfall 301 (114), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
<u>Conventional//</u> <u>Nonconventional</u>	Storet Code	(lb/day, unless stated)		Other Units		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
<u>Conventional</u>							
BOD <sub>5</sub>	00310	1095	2773	-	-	1/Quarter	Grab 24 Hr
TSS (*2)	00530	1329	4286	-	-	1/Month	Composite
<u>Nonconventional</u>							
Flow – MGD	50050	Report	Report	-	-	Continuous	Recorder
<u>Volatile Compounds</u>							
Acrylonitrile	34215	2.65	6.54	-	-	1/Year	Grab
Benzene	34030	1.61	3.78	-	-	1/Year	Grab 24 Hr
Carbon Tetrachloride	32102	4	10.7	-	-	2/Month	Composite
Chlorobenzene	34301	4	10.7	-	-	1/Year	Grab
Chloroethane	85811	3.1	8.32	-	-	1/Year	Grab 24 Hr
Chloroform	32106	3.13	9.16	-	-	1/Week	Composite 24 Hr
1,1-Dichloroethane	34496	0.62	1.66	-	-	1Month	Composite 24 Hr
1,2-Dichloroethane	32103	5.07	16.2	-	-	1/Month	Composite
1,1-Dichloroethylene	34501	0.62	1.69	-	-	1/Year	Grab 24 Hr
1,2-Dichloropropane	34541	5.53	22.4	-	-	1/Month	Composite
1,3-Dichloropropylene	34561	5.53	22.4	-	-	1/Year	Grab
Ethylbenzene	34371	4	10.7	-	-	1/Year	Grab
Methyl Chloride	34418	3.1	8.32	-	-	1/Year	Grab
Methylene Chloride	34423	1.01	4.79	-	-	1/Year	Grab 24 Hr
Tetrachloroethylene	34475	1.47	4.62	-	-	1/Month	Composite
Toluene	34010	0.79	2.09	-	-	1/Year	Grab
1,2-trans-Dichloroethylene	34546	0.71	1.86	-	-	1/Year	Grab
1,1,1-Trichloroethane	34506	0.62	1.66	-	-	1/Year	Grab
1,1,2-Trichloroethane	34511	0.9	3.58	-	-	1/Year	Grab
Trichloroethylene	39180	0.73	1.95	-	-	1/Year	Grab

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**EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 311 – Phase I continued)**

<u><b>Effluent Characteristic</b></u>	<u><b>Storet Code</b></u>	<u><b>Discharge Limitations</b></u>				<u><b>Monitoring Requirements</b></u>	
		<b>(lb/day, unless stated)</b>		<b>Other Units (ug/l, unless stated)</b>		<u><b>Measurement Frequency</b></u>	<u><b>Sample Type</b></u>
		<u><b>Monthly Average</b></u>	<u><b>Daily Maximum</b></u>	<u><b>Monthly Average</b></u>	<u><b>Daily Maximum</b></u>		
Vinyl Chloride	39175	2.73	4.85	-	-	1/Month	24 Hr Composite
<u><b>Acid Compounds</b></u>							
2,4-Dimethylphenol	34606	0.54	1.32	-	-	1/Year	Grab
4,6-Dinitro-o-cresol	34657	2.2	7.81	-	-	1/Year	Grab
2,4-Dinitrophenol	34616	34	121	-	-	1/Year	Grab
2-Nitrophenol	34591	1.83	6.51	-	-	1/Year	Grab
4-Nitrophenol	34646	4.57	16.2	-	-	1/Year	Grab
Phenol	34694	0.54	1.32	-	-	1/Year	Grab
<u><b>Base Neutral Compounds</b></u>							
Acenaphthene	34205	0.54	1.32	-	-	1/Year	Grab
Acenaphthylene	34200	0.54	1.32	-	-	1/Year	Grab
Anthracene	34220	0.54	1.32	-	-	1/Year	Grab
Benzo(a)anthracene	34526	0.54	1.32	-	-	1/Year	Grab
Benzo(a)pyrene	34247	0.56	1.35	-	-	1/Year	Grab
3,4-Benzofluoranthene	34230	0.56	1.35	-	-	1/Year	Grab
Benzo(k)fluoranthene	34242	0.54	1.32	-	-	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	2.68	7.27	-	-	1/Year	Grab
Chrysene	34320	0.54	1.32	-	-	1/Year	Grab
1,2-Dichlorobenzene	34536	5.53	22.4	-	-	1/Year	Grab
1,3-Dichlorobenzene	34566	4	10.7	-	-	1/Year	Grab
1,4-Dichlorobenzene	34571	4	10.7	-	-	1/Year	Grab
Diethyl phthalate	34336	1.3	3.19	-	-	1/Year	Grab
Dimethyl phthalate	34341	0.54	1.32	-	-	1/Year	Grab
Di-n-butyl phthalate	39110	0.56	1.21	-	-	1/Year	Grab
Fluoranthene	34376	0.62	1.52	-	-	1/Year	Grab
Fluorene	34381	0.54	1.32	-	-	1/Year	Grab
Hexachlorobenzene	39700	5.53	22.4	-	-	1/Year	Grab
Hexachlorobutadiene	34391	4	10.7	-	-	1/Year	Grab
Hexachloroethane	34396	5.53	22.4	-	-	1/Year	Grab
Naphthalene	34696	0.54	1.32	-	-	1/Year	Grab
Nitrobenzene	34447	63.1	181	-	-	1/Year	Grab
Phenanthrene	34461	0.54	1.32	-	-	1/Year	Grab
Pyrene	34469	0.56	1.35	-	-	1/Year	Grab
1,2,4-Trichlorobenzene	34551	5.53	22.4	-	-	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 311 (531), at the point of discharge southeast of the Solvents/EDC I Plant control room (Building 1617) in Block 16, prior to mixing with other waters in CWR Canal D at Latitude 30°18'57", Longitude 91°14'03".

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FOOTNOTE(S):

- (\*1) The permittee shall notify the Office of Environmental Services, the Office of Environmental Compliance – Permit Compliance Unit, and the Capital Regional Office in writing at least 30 days prior to discharging under the Phase II conditions.
- (\*2) TSS limitations are to be determined as follows:  $TSS \text{ (reported on DMR)} = TSS \text{ measured at Internal Outfall 311 (531)} - TSS \text{ of once through cooling water measured prior to entering the Solvents/EDC I Plant.}$  Sampling shall be done concurrently.

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# **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)**

During the period beginning cessation of process wastewater discharges from the Ethylene Dichloride manufacturing operations and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 311 (531) (Solvents) (Phase 2) (estimated total outfall flow is 8.45 MGD), this internal outfall consists of the continuous discharge of OCPSP process wastewater, OCPSP process area stormwater, non-categorical process wastewater, recovered groundwater, once through cooling water, and utility wastewater from the Solvents/EDC I Plant. This internal outfall discharges to CWR Canal D, through Internal Outfall 301 (114), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
<u>Conventional/ Nonconventional</u>	Storet Code			Other Units		Measurement Frequency	Sample Type
		(lb/day, unless stated) Monthly Average	Daily Maximum	(uq/l, unless stated) Monthly Average	Daily Maximum		
<u>Conventional</u>							
BOD <sub>5</sub>	00310	1,181	3,034	-	-	1/Quarter	Grab 24 Hr
TSS (*1)	00530	1,393	4,500	-	-	1/Month	Composite
<u>Nonconventional</u>							
Flow – MGD	50050	Report	Report	-	-	Continuous	Recorder
<u>Volatile Compounds</u>							
Acrylonitrile	34215	2.65	6.54	-	-	1/Year	Grab
Benzene	34030	1.61	3.78	-	-	1/Year	Grab 24 Hr
Carbon Tetrachloride	32102	4	10.7	-	-	2/Month	Composite
Chlorobenzene	34301	4	10.7	-	-	1/Year	Grab
Chloroethane	85811	3.1	8.32	-	-	1/Year	Grab 24 Hr
Chloroform	32106	3.13	9.16	-	-	1/Week	Composite 24 Hr
1,1-Dichloroethane	34496	0.62	1.66	-	-	1/Month	Composite 24 Hr
1,2-Dichloroethane	32103	5.07	16.2	-	-	1/Month	Composite
1,1-Dichloroethylene	34501	0.62	1.69	-	-	1/Year	Grab 24 Hr
1,2-Dichloropropane	34541	5.53	22.4	-	-	1/Month	Composite
1,3-Dichloropropylene	34561	5.53	22.4	-	-	1/Year	Grab
Ethylbenzene	34371	4	10.7	-	-	1/Year	Grab
Methyl Chloride	34418	3.1	8.32	-	-	1/Year	Grab
Methylene Chloride	34423	1.01	4.79	-	-	1/Year	Grab 24 Hr
Tetrachloroethylene	34475	1.47	4.62	-	-	1/Month	Composite
Toluene	34010	0.79	2.09	-	-	1/Year	Grab
1,2-trans-Dichloroethylene	34546	0.71	1.86	-	-	1/Year	Grab
1,1,1-Trichloroethane	34506	0.62	1.66	-	-	1/Year	Grab
1,1,2-Trichloroethane	34511	0.9	3.58	-	-	1/Year	Grab
Trichloroethylene	39180	0.73	1.95	-	-	1/Year	Grab



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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 311 – Phase II continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
				Other Units		Measurement Frequency	Sample Type
		(lb/day, unless stated) Monthly Average	Daily Maximum	(ug/l, unless stated) Monthly Average	Daily Maximum		
Vinyl Chloride	39175	2.73	4.85	-	-	1/Month	24 Hr Composite
<b>Acid Compounds</b>							
2,4-Dimethylphenol	34606	0.54	1.32	-	-	1/Year	Grab
4,6-Dinitro-o-cresol	34657	2.2	7.81	-	-	1/Year	Grab
2,4-Dinitrophenol	34616	34	121	-	-	1/Year	Grab
2-Nitrophenol	34591	1.83	6.51	-	-	1/Year	Grab
4-Nitrophenol	34646	4.57	16.2	-	-	1/Year	Grab
Phenol	34694	0.54	1.32	-	-	1/Year	Grab
<b>Base Neutral Compounds</b>							
Acenaphthene	34205	0.54	1.32	-	-	1/Year	Grab
Acenaphthylene	34200	0.54	1.32	-	-	1/Year	Grab
Anthracene	34220	0.54	1.32	-	-	1/Year	Grab
Benzo(a)anthracene	34526	0.54	1.32	-	-	1/Year	Grab
Benzo(a)pyrene	34247	0.56	1.35	-	-	1/Year	Grab
3,4-Benzofluoranthene	34230	0.56	1.35	-	-	1/Year	Grab
Benzo(k)fluoranthene	34242	0.54	1.32	-	-	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	2.68	7.27	-	-	1/Year	Grab
Chrysene	34320	0.54	1.32	-	-	1/Year	Grab
1,2-Dichlorobenzene	34536	5.53	22.4	-	-	1/Year	Grab
1,3-Dichlorobenzene	34566	4	10.7	-	-	1/Year	Grab
1,4-Dichlorobenzene	34571	4	10.7	-	-	1/Year	Grab
Diethyl phthalate	34336	1.3	3.19	-	-	1/Year	Grab
Dimethyl phthalate	34341	0.54	1.32	-	-	1/Year	Grab
Di-n-butyl phthalate	39110	0.56	1.21	-	-	1/Year	Grab
Fluoranthene	34376	0.62	1.52	-	-	1/Year	Grab
Fluorene	34381	0.54	1.32	-	-	1/Year	Grab
Hexachlorobenzene	39700	5.53	22.4	-	-	1/Year	Grab
Hexachlorobutadiene	34391	4	10.7	-	-	1/Year	Grab
Hexachloroethane	34396	5.53	22.4	-	-	1/Year	Grab
Naphthalene	34696	0.54	1.32	-	-	1/Year	Grab
Nitrobenzene	34447	63.1	181	-	-	1/Year	Grab
Phenanthrene	34461	0.54	1.32	-	-	1/Year	Grab
Pyrene	34469	0.56	1.35	-	-	1/Year	Grab
1,2,4-Trichlorobenzene	34551	5.53	22.4	-	-	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 311 (531), at the point of discharge southeast of the Solvents/EDC 1 Plant control room (Building 1617) in Block 16, prior to mixing with other waters in CWR Canal D at Latitude 30°18'57", Longitude 91°14'03".

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FOOTNOTE(S):

- (\*1) TSS limitations are to be determined as follows:  $\text{TSS (reported on DMR)} = \text{TSS measured at Internal Outfall 311 (531)} - \text{TSS of once through cooling water measured prior to entering the Solvents/EDC I Plant}$ . Sampling shall be done concurrently.

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 401 (115) (Canal E) (estimated total outfall flow is 143.7 MGD), this internal outfall consists of the continuous discharge of cooling water returns, fire deluge water, utility wastewater, carbon bed backwash, non-process area stormwater, discharges from Internal Outfalls 421 (911) and 411 (301), and discharges from Power III. This internal outfall discharges to CWR Canal A and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		Other Units					
<u>Conventional/ Nonconventional</u>	Storet Code	(lb/day, unless stated)		(ug/l, unless stated)		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Week	Estimate
TOC - mg/l	00680	-	-	-	50	1/Week	Grab
Oil and Grease-mg/l	03582	-	-	-	15	1/Week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 401 (115), at the point of discharge from the southern end of CWR Canal E, prior to mixing with other waters in CWR Canal A at Latitude 30°18'58", Longitude 91°14'18".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 411 (301) (Chlorine) (estimated total outfall flow is 20.1 MGD), this internal outfall is a virtual outfall consisting of the continuous discharge of inorganic process wastewater, process area stormwater, once through cooling water, and utility wastewater from the Chlorine Plant and the discharge of inorganic process wastewater, process area stormwater, non-process area stormwater, and utility wastewater from the Caustic Plant. This internal outfall discharges to CWR Canal E, through Internal Outfall 401 (115), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
<u>Conventional/</u> <u>Nonconventional</u>	<u>Storet</u> <u>Code</u>	<u>Other Units</u>		<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
		(lb/day, unless stated)	(ug/l, unless stated)		
<u>Conventional</u>		<u>Monthly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>		
TSS	00530	3570	7700	1/Month	24 Hr Composite
<u>Nonconventional</u>					
Flow - MGD	50050	Report	Report	1/Month	Estimate
Chlorine (Total Residual)	50060	55.3	91	1/Month	Grab
<u>METALS</u>					
Copper (Total)	01042	34.3	84	1/Month	24 Hr Composite
Lead (Total)	01051	16.8	41.3	1/Month	24 Hr Composite
Nickel (Total)	01007	25.9	67.9	1/Month	24 Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 411 (301), the summation of samples taken at the following locations: Chlorine Plant sample location - Chlorine Plant discharge at 48-inch concrete trench and Caustic Plant sampling location - 36-inch flume located on the south side of the Caustic Plant. For purposes of TSS at the Chlorine Plant, the limit applies as the sum of TSS discharged at (a) the cell area drainage and cell washes and (b) the neutralization system facility prior to commingling with once through cooling water for eventual discharge through the Chlorine Plant 48-inch concrete trench. The sum of the influent flows may be used for calculating TSS mass. The virtual internal outfall coordinates are Latitude 30°19'06", Longitude 91°14'09".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date, the permittee is authorized to discharge from:

Internal Outfall 421 (911) (Poly B) (estimated total outfall flow is 2.55 MGD), this internal outfall consists of the continuous discharge of OCPSF process wastewater, OCPSF process area stormwater, once through cooling water, and utility wastewater from the Polyethylene B Plant. This internal outfall discharges to CWR Canal E, through Internal Outfall 401 (115), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		Other Units					
<u>Conventional/ Nonconventional</u>	<u>Storet Code</u>	(lb/day, unless stated) <u>Monthly Average</u>	<u>Daily Maximum</u>	(ug/l, unless stated) <u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
<b>Conventional</b>							
BOD <sub>5</sub>	00310	99	242	-	-	1/Quarter	Grab
TSS	00530	114	366	-	-	1/Quarter	Grab
<b>Nonconventional</b>							
Flow - MGD	50050	Report	Report	-	-	1/Week	Estimate
<b><u>Volatile Compounds</u></b>							
Acrylonitrile	34215	0.26	0.64	-	-	1/Year	Grab
Benzene	34030	0.16	0.37	-	-	1/Year	Grab
Carbon Tetrachloride	32102	0.39	1.05	-	-	1/Year	Grab
Chlorobenzene	34301	0.39	1.05	-	-	1/Year	Grab
Chloroethane	85811	0.3	0.81	-	-	1/Year	Grab
Chloroform	32106	0.95	2.76	-	-	1/Year	Grab
1,1-Dichloroethane	34496	0.061	0.16	-	-	1/Year	Grab
1,2-Dichloroethane	32103	0.5	1.58	-	-	1/Year	Grab
1,1-Dichloroethylene	34501	0.06	0.17	-	-	1/Year	Grab
1,2-Dichloropropane	34541	0.54	2.2	-	-	1/Year	Grab
1,3-Dichloropropylene	34561	0.54	2.2	-	-	1/Year	Grab
Ethylbenzene	34371	0.39	1.05	-	-	1/Year	Grab
Methyl Chloride	34418	0.30	0.81	-	-	1/Year	Grab
Methylene Chloride	34423	0.1	0.47	-	-	1/Year	Grab
Tetrachloroethylene	34475	0.14	0.45	-	-	1/Year	Grab
Toluene	34010	0.08	0.2	-	-	1/Year	Grab
1,2-trans-Dichloroethylene	34546	0.07	0.18	-	-	1/Year	Grab
1,1,1-Trichloroethane	34506	0.06	0.16	-	-	1/Year	Grab
1,1,2-Trichloroethane	34511	0.09	0.35	-	-	1/Year	Grab
Trichloroethylene	39180	0.07	0.19	-	-	1/Year	Grab
Vinyl Chloride	39175	0.27	0.47	-	-	1/Year	Grab
<b><u>Acid Compounds</u></b>							
2,4-Dimethylphenol	34606	0.05	0.13	-	-	1/Year	Grab
4,6-Dinitro-o-cresol	34657	0.21	0.76	-	-	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 421 continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
		(lb/day, unless stated)		Other Units (ug/l, unless stated)		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
2,4-Dinitrophenol	34616	3.3	11.8	-	-	1/Year	Grab
2-Nitrophenol	34591	0.18	0.64	-	-	1/Year	Grab
4-Nitrophenol	34646	0.45	1.59	-	-	1/Year	Grab
Phenol	34694	0.05	0.13	-	-	1/Year	Grab
<b>Base Neutral Compounds</b>							
Acenaphthene	34205	0.05	0.13	-	-	1/Year	Grab
Acenaphthylene	34200	0.05	0.13	-	-	1/Year	Grab
Anthracene	34220	0.05	0.13	-	-	1/Year	Grab
Benzo(a)anthracene	34526	0.05	0.13	-	-	1/Year	Grab
Benzo(a)pyrene	34247	0.06	0.13	-	-	1/Year	Grab
3,4-Benzofluoranthene	34230	0.06	0.13	-	-	1/Year	Grab
Benzo(k)fluoranthene	34242	0.05	0.13	-	-	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	0.26	0.71	-	-	1/Year	Grab
Chrysene	34320	0.05	0.13	-	-	1/Year	Grab
1,2-Dichlorobenzene	34536	0.54	2.2	-	-	1/Year	Grab
1,3-Dichlorobenzene	34566	0.39	1.05	-	-	1/Year	Grab
1,4-Dichlorobenzene	34571	0.39	1.05	-	-	1/Year	Grab
Diethyl phthalate	34336	0.13	0.31	-	-	1/Year	Grab
Dimethyl phthalate	34341	0.05	0.13	-	-	1/Year	Grab
Di-n-butyl phthalate	39110	0.06	0.12	-	-	1/Year	Grab
Fluoranthene	34376	0.06	0.15	-	-	1/Year	Grab
Fluorene	34381	0.05	0.13	-	-	1/Year	Grab
Hexachlorobenzene	39700	0.54	2.2	-	-	1/Year	Grab
Hexachlorobutadiene	34391	0.39	1.05	-	-	1/Year	Grab
Hexachloroethane	34396	0.54	2.2	-	-	1/Year	Grab
Naphthalene	34696	0.05	0.13	-	-	1/Year	Grab
Nitrobenzene	34447	6.2	17.6	-	-	1/Year	Grab
Phenanthrene	34461	0.05	0.13	-	-	1/Year	Grab
Pyrene	34469	0.06	0.13	-	-	1/Year	Grab
1,2,4-Trichlorobenzene	34551	0.54	2.2	-	-	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 421 (911), at the point of discharge from 421A (911A) located at the southwest corner of the Polyethylene B Plant, at the corner of North Canal Road and the railroad track in Block 9, prior to mixing with other waters in CWR Canal E at Latitude 30°19'09", Longitude 91°13'44".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 501 (116) (Canal A) (estimated total outfall flow is 283.3 MGD), this internal outfall consists of the continuous discharge of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, post first-flush OCPSF storm water, discharges from Internal Outfalls 541 (1531), 521 (1521), 531 (1561), 511 (2501), and 601 (117), and discharges from embedded company (INEOS). This internal outfall discharges to CWR Canal A and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirements</u>	
	Storet Code	Other Units				Measurement Frequency	Sample Type
		(lb/day, unless stated)	(ug/l, unless stated)				
<u>Conventional/</u>		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
<u>Nonconventional</u>							
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Week	Estimate
TOC - mg/l	00680	-	-	-	50	1/Week	Grab
Oil and Grease-mg/l	03582	-	-	-	15	1/Week	Grab
Benzene	34030	-	-	-	134	1/Week	Grab
Ethylbenzene	34371	-	-	-	380	1/Week	Grab
Methyl Chloride	34418	-	-	-	295	1/Week	Grab
Toluene	34010	-	-	-	74	1/Week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 501 (116), at the point of discharge from the southwestern end of CWR Canal A prior to mixing with other waters in CWR Canal E at Latitude 30°18'58", Longitude 91°14'21".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 511 (2501) (Vector) (estimated total outfall flow is 0.425 MGD), this internal outfall consists of the intermittent discharge of OCPSF process wastewater, OCPSF process area storm water, utility wastewater, and non-process area stormwater from the Vector SBC Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall (501) 116, and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		Other Units					
		(lb/day, unless stated)		(ug/l, unless stated)			
<u>Conventional/ Nonconventional</u>	<u>Storet Code</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
<u>Conventional</u>							
BOD <sub>5</sub> - mg/l	00310	-	-	24	64	1/Quarter	Grab
TSS - mg/l	00530	-	-	40	130	1/Quarter	Grab
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Day	Estimate
<u>Volatile Compounds</u>							
Acrylonitrile	34215	-	-	94	232	1/Year	Grab
Benzene	34030	-	-	57	134	1/Year	Grab
Carbon Tetrachloride	32102	-	-	142	380	1/Year	Grab
Chlorobenzene	34301	-	-	142	380	1/Year	Grab
Chloroethane	85811	-	-	110	295	1/Year	Grab
Chloroform	32106	-	-	111	325	1/Year	Grab
1,1-Dichloroethane	34496	-	-	22	59	1/Year	Grab
1,2-Dichloroethane	32103	-	-	180	574	1/Year	Grab
1,1-Dichloroethylene	34501	-	-	22	60	1/Year	Grab
1,2-Dichloropropane	34541	-	-	196	794	1/Year	Grab
1,3-Dichloropropylene	34561	-	-	196	794	1/Year	Grab
Ethylbenzene	34371	-	-	142	380	1/Year	Grab
Methyl Chloride	34418	-	-	110	295	1/Year	Grab
Methylene Chloride	34423	-	-	36	170	1/Year	Grab
Tetrachloroethylene	34475	-	-	52	164	1/Year	Grab
Toluene	34010	-	-	28	74	1/Year	Grab
1,2-trans-Dichloroethylene	34546	-	-	25	66	1/Year	Grab
1,1,1-Trichloroethane	34506	-	-	22	59	1/Year	Grab
1,1,2-Trichloroethane	34511	-	-	32	127	1/Year	Grab
Trichloroethylene	39180	-	-	26	69	1/Year	Grab
Vinyl Chloride	39175	-	-	97	172	1/Year	Grab
<u>Acid Compounds</u>							
2,4-Dimethylphenol	34606	-	-	19	47	1/Year	Grab
4,6-Dinitro-o-cresol	34657	-	-	78	277	1/Year	Grab



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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 511 continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
		(lb/day, unless stated)		Other Units		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
2,4-Dinitrophenol	34616	-	-	1207	4291	1/Year	Grab
2-Nitrophenol	34591	-	-	65	231	1/Year	Grab
4-Nitrophenol	34646	-	-	162	576	1/Year	Grab
Phenol	34694	-	-	19	47	1/Year	Grab
<b>Base Neutral Compounds</b>							
Acenaphthene	34205	-	-	19	47	1/Year	Grab
Acenaphthylene	34200	-	-	19	47	1/Year	Grab
Anthracene	34220	-	-	19	47	1/Year	Grab
Benzo(a)anthracene	34526	-	-	19	47	1/Year	Grab
Benzo(a)pyrene	34247	-	-	20	48	1/Year	Grab
3,4-Benzofluoranthene	34230	-	-	20	48	1/Year	Grab
Benzo(k)fluoranthene	34242	-	-	19	47	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	-	-	95	258	1/Year	Grab
Chrysene	34320	-	-	19	47	1/Year	Grab
1,2-Dichlorobenzene	34536	-	-	196	794	1/Year	Grab
1,3-Dichlorobenzene	34566	-	-	142	380	1/Year	Grab
1,4-Dichlorobenzene	34571	-	-	142	380	1/Year	Grab
Diethyl phthalate	34336	-	-	46	113	1/Year	Grab
Dimethyl phthalate	34341	-	-	19	47	1/Year	Grab
Di-n-butyl phthalate	39110	-	-	20	43	1/Year	Grab
Fluoranthene	34376	-	-	22	54	1/Year	Grab
Fluorene	34381	-	-	19	47	1/Year	Grab
Hexachlorobenzene	39700	-	-	196	794	1/Year	Grab
Hexachlorobutadiene	34391	-	-	142	380	1/Year	Grab
Hexachloroethane	34396	-	-	196	794	1/Year	Grab
Naphthalene	34696	-	-	19	47	1/Year	Grab
Nitrobenzene	34447	-	-	2237	6402	1/Year	Grab
Phenanthrene	34461	-	-	19	47	1/Year	Grab
Pyrene	34469	-	-	20	48	1/Year	Grab
1,2,4-Trichlorobenzene	34551	-	-	196	794	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 511 (2501), at the point of discharge from the weir in the concrete ditch at the northwest corner of the Vector SBC Plant in Block 43, prior to mixing with other waters in CWR Canal A at Latitude 30°19'00", Longitude 91°14'31".

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**EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)**

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 521 (1521) (CMP-Methanes) (estimated total outfall flow is 1.3 MGD), this internal outfall consists of the intermittent discharge of OCPSPF process wastewater, OCPSPF process area storm water, non-process area storm water, once through cooling water, and utility wastewater from the Chlorinated Methanes Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
<u>Conventional/</u> <u>Nonconventional</u>	Storet Code	(lb/day, unless stated)		Other Units (ug/l, unless stated)		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
<u>Conventional</u>							
BOD <sub>5</sub> - mg/l	00310	-	-	34	92	1/Quarter	Grab
TSS - mg/l	00530	-	-	49	159	1/Quarter	Grab
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Day	Estimate
<u>Volatile Compounds</u>							
Acrylonitrile	34215	-	-	94	232	1/Year	Grab
Benzene	34030	-	-	57	134	1/Year	Grab
Carbon Tetrachloride	32102	-	-	142	380	1/Year	Grab
Chlorobenzene	34301	-	-	142	380	1/Year	Grab
Chloroethane	85811	-	-	110	295	1/Year	Grab
Chloroform	32106	-	-	111	325	1/Year	Grab
1,1-Dichloroethane	34496	-	-	22	59	1/Year	Grab
1,2-Dichloroethane	32103	-	-	180	574	1/Year	Grab
1,1-Dichloroethylene	34501	-	-	22	60	1/Year	Grab
1,2-Dichloropropane	34541	-	-	196	794	1/Year	Grab
1,3-Dichloropropylene	34561	-	-	196	794	1/Year	Grab
Ethylbenzene	34371	-	-	142	380	1/Year	Grab
Methyl Chloride	34418	-	-	110	295	1/Year	Grab
Methylene Chloride	34423	-	-	36	170	1/Year	Grab
Tetrachloroethylene	34475	-	-	52	164	1/Year	Grab
Toluene	34010	-	-	28	74	1/Year	Grab
1,2-trans-Dichloroethylene	34546	-	-	25	66	1/Year	Grab
1,1,1-Trichloroethane	34506	-	-	22	59	1/Year	Grab
1,1,2-Trichloroethane	34511	-	-	32	127	1/Year	Grab
Trichloroethylene	39180	-	-	26	69	1/Year	Grab
Vinyl Chloride	39175	-	-	97	172	1/Year	Grab
<u>Acid Compounds</u>							
2,4-Dimethylphenol	34606	-	-	19	47	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 521 continued)

<u>Effluent Characteristic</u>	<u>Storet Code</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		<u>(lb/day, unless stated)</u>		<u>Other Units</u> <u>(ug/l, unless stated)</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
		<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>		
4,6-Dinitro-o-cresol	34657	-	-	78	277	1/Year	Grab
2,4-Dinitrophenol	34616	-	-	1207	4291	1/Year	Grab
2-Nitrophenol	34591	-	-	65	231	1/Year	Grab
4-Nitrophenol	34646	-	-	162	576	1/Year	Grab
Phenol	34694	-	-	19	47	1/Year	Grab
<b><u>Base Neutral Compounds</u></b>							
Acenaphthene	34205	-	-	19	47	1/Year	Grab
Acenaphthylene	34200	-	-	19	47	1/Year	Grab
Anthracene	34220	-	-	19	47	1/Year	Grab
Benzo(a)anthracene	34526	-	-	19	47	1/Year	Grab
Benzo(a)pyrene	34247	-	-	20	48	1/Year	Grab
3,4-Benzofluoranthene	34230	-	-	20	48	1/Year	Grab
Benzo(k)fluoranthene	34242	-	-	19	47	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	-	-	95	258	1/Year	Grab
Chrysene	34320	-	-	19	47	1/Year	Grab
1,2-Dichlorobenzene	34536	-	-	196	794	1/Year	Grab
1,3-Dichlorobenzene	34566	-	-	142	380	1/Year	Grab
1,4-Dichlorobenzene	34571	-	-	142	380	1/Year	Grab
Diethyl phthalate	34336	-	-	46	113	1/Year	Grab
Dimethyl phthalate	34341	-	-	19	47	1/Year	Grab
Di-n-butyl phthalate	39110	-	-	20	43	1/Year	Grab
Fluoranthene	34376	-	-	22	54	1/Year	Grab
Fluorene	34381	-	-	19	47	1/Year	Grab
Hexachlorobenzene	39700	-	-	196	794	1/Year	Grab
Hexachlorobutadiene	34391	-	-	142	380	1/Year	Grab
Hexachloroethane	34396	-	-	196	794	1/Year	Grab
Naphthalene	34696	-	-	19	47	1/Year	Grab
Nitrobenzene	34447	-	-	2237	6402	1/Year	Grab
Phenanthrene	34461	-	-	19	47	1/Year	Grab
Pyrene	34469	-	-	20	48	1/Year	Grab
1,2,4-Trichlorobenzene	34551	-	-	196	794	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 521 (1521), at the point of discharge from the North side of the sump outfall weir on the southwest side of Chlorinated Methanes Plant in Block 46, prior to mixing with other waters in CWR Canal A at Latitude 30°19'12", Longitude 91°14'28".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 531 (1561) (CMP) (estimated total outfall flow is 0.334 MGD), this Internal outfall consists of the continuous discharge of non-categorical process wastewater (thermal treatment unit) from the Chlorinated Methanes Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		Other Units					
		(lb/day, unless stated)		(ug/l, unless stated)			
<u>Conventional/</u>	Storet	Monthly	Daily	Monthly	Daily	Measurement	Sample Type
<u>Nonconventional</u>	Code	Average	Maximum	Average	Maximum	Frequency	
<u>Nonconventional</u>							
Flow – MGD	50050	Report	Report	-	-	1/Month	Estimate
TOC – mg/l	00680	-	-	-	50	1/Month	Grab
Oil and Grease-mg/l	03582	-	-	-	15	1/Month	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 531 (1561), at the point of discharge from the Chlorinated Methanes Plant thermal treatment unit (TTU), at the discharge piping sample point on the west side of the shot pond in Block 46, prior to mixing with other waters in CWR Canal A at Latitude 30°19'10", Longitude 91°14'24".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 541 (1531) (CMP-Methanes) (estimated total outfall flow is 0.077 MGD), this internal outfall consists of the continuous discharge of OCPSP process wastewater from the Chlorinated Methanes Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		Other Units					
<u>Conventional/ Nonconventional</u>	<u>Storet Code</u>	(lb/day, unless stated) <u>Monthly Average</u>	<u>Daily Maximum</u>	(ug/l, unless stated) <u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
<u>Conventional</u>							
BOD <sub>5</sub>	00310	23	61	-	-	1/Quarter	Grab
TSS	00530	33	106	-	-	1/Quarter	Grab
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	Continuous	Recorder
<u>Volatile Compounds</u>							
Acrylonitrile	34215	0.06	0.16	-	-	1/Year	Grab
Benzene	34030	0.04	0.09	-	-	1/Year	Grab
Carbon Tetrachloride	32102	0.1	0.25	-	-	1/Year	Grab
Chlorobenzene	34301	0.1	0.25	-	-	1/Year	Grab
Chloroethane	85811	0.07	0.2	-	-	1/month	Grab
Chloroform	32106	0.07	0.22	-	-	1/Year	Grab
1,1-Dichloroethane	34496	0.02	0.04	-	-	1/Year	Grab
1,2-Dichloroethane	32103	0.12	0.38	-	-	1/Year	Grab
1,1-Dichloroethylene	34501	0.02	0.04	-	-	1/Year	Grab
1,2-Dichloropropane	34541	0.13	0.53	-	-	1/Year	Grab
1,3-Dichloropropylene	34561	0.13	0.53	-	-	1/Year	Grab
Ethylbenzene	34371	0.1	0.25	-	-	1/Year	Grab
Methyl Chloride	34418	1.11	2.7	-	-	1/month	Grab
Methylene Chloride	34423	0.02	0.11	-	-	1/Year	Grab
Tetrachloroethylene	34475	0.04	0.11	-	-	1/Year	Grab
Toluene	34010	0.02	0.05	-	-	1/Year	Grab
1,2-trans-Dichloroethylene	34546	0.02	0.04	-	-	1/Year	Grab
1,1,1-Trichloroethane	34506	0.02	0.04	-	-	1/Year	Grab
1,1,2-Trichloroethane	34511	0.02	0.09	-	-	1/Year	Grab
Trichloroethylene	39180	0.02	0.05	-	-	1/Year	Grab
Vinyl Chloride	39175	0.07	0.12	-	-	1/Year	Grab
<u>Acid Compounds</u>							
2,4-Dimethylphenol	34606	0.01	0.03	-	-	1/Year	Grab
4,6-Dinitro-o-cresol	34657	0.05	0.19	-	-	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 541 continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
		(lb/day, unless stated)		Other Units (ug/l, unless stated)		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
2,4-Dinitrophenol	34616	0.81	2.86	-	-	1/Year	Grab
2-Nitrophenol	34591	0.04	0.15	-	-	1/Year	Grab
4-Nitrophenol	34646	0.11	0.38	-	-	1/Year	Grab
Phenol	34694	0.01	0.03	-	-	1/Year	Grab
<b>Base Neutral Compounds</b>							
Acenaphthene	34205	0.01	0.03	-	-	1/Year	Grab
Acenaphthylene	34200	0.01	0.03	-	-	1/Year	Grab
Anthracene	34220	0.01	0.03	-	-	1/Year	Grab
Benzo(a)anthracene	34526	0.01	0.03	-	-	1/Year	Grab
Benzo(a)pyrene	34247	0.01	0.03	-	-	1/Year	Grab
3,4-Benzofluoranthene	34230	0.01	0.03	-	-	1/Year	Grab
Benzo(k)fluoranthene	34242	0.01	0.03	-	-	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	0.06	0.17	-	-	1/Year	Grab
Chrysene	34320	0.01	0.03	-	-	1/Year	Grab
1,2-Dichlorobenzene	34536	0.13	0.53	-	-	1/Year	Grab
1,3-Dichlorobenzene	34566	0.10	0.25	-	-	1/Year	Grab
1,4-Dichlorobenzene	34571	0.10	0.25	-	-	1/Year	Grab
Diethyl phthalate	34336	0.08	0.03	-	-	1/Year	Grab
Dimethyl phthalate	34341	0.01	0.03	-	-	1/Year	Grab
Di-n-butyl phthalate	39110	0.01	0.03	-	-	1/Year	Grab
Fluoranthene	34376	0.02	0.04	-	-	1/Year	Grab
Fluorene	34381	0.01	0.03	-	-	1/Year	Grab
Hexachlorobenzene	39700	0.13	0.53	-	-	1/Year	Grab
Hexachlorobutadiene	34391	0.1	0.25	-	-	1/Year	Grab
Hexachloroethane	34396	0.13	0.53	-	-	1/Year	Grab
Naphthalene	34696	0.01	0.03	-	-	1/Year	Grab
Nitrobenzene	34447	1.49	4.27	-	-	1/Year	Grab
Phenanthrene	34461	0.01	0.03	-	-	1/Year	Grab
Pyrene	34469	0.01	0.03	-	-	1/Year	Grab
1,2,4-Trichlorobenzene	34551	0.13	0.53	-	-	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 541 (1531), at the point of the discharge piping sample point from the steam column, on the southwest side of Chlorinated Methanes Plant in Block 46, prior to mixing with other waters in CWR Canal A at Latitude 30°19'14", Longitude 91°14'26".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 551 (741) (LHC2) (estimated total outfall flow is 0.879 MGD), this internal outfall consists of the intermittent discharge of OCPSF process wastewater, OCPSF process area stormwater, once through cooling water, and utility wastewater from the LHC II Plant. This internal outfall discharges to CWR Canal F, through Internal Outfall 501 (116), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
<u>Conventional/</u> <u>Nonconventional</u>	<u>Storet</u> <u>Code</u>	<u>(lb/day, unless stated)</u>		<u>Other Units</u> <u>(ug/l, unless stated)</u>		<u>Measurement</u> <u>Frequency</u>	<u>Sample Type</u>
		<u>Monthly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>	<u>Monthly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>		
<u>Conventional</u>							
BOD <sub>5</sub> -mg/l	00310	-	-	30	80	2/Month	Grab
TSS - mg/l	00530	-	-	46	149	2/Month	Grab
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	Continuous	Recorder
<u>Volatile Compounds</u>							
Acrylonitrile	34215	-	-	94	232	1/Year	Grab
Benzene	34030	-	-	57	134	1/Year	Grab
Carbon Tetrachloride	32102	-	-	142	380	1/Year	Grab
Chlorobenzene	34301	-	-	142	380	1/Year	Grab
Chloroethane	85811	-	-	110	295	1/Year	Grab
Chloroform	32106	-	-	111	325	1/Year	Grab
1,1-Dichloroethane	34496	-	-	22	59	1/Year	Grab
1,2-Dichloroethane	32103	-	-	180	574	1/Year	Grab
1,1-Dichloroethylene	34501	-	-	22	60	1/Year	Grab
1,2-Dichloropropane	34541	-	-	196	794	1/Year	Grab
1,3-Dichloropropylene	34561	-	-	196	794	1/Year	Grab
Ethylbenzene	34371	-	-	142	380	1/Year	Grab
Methyl Chloride	34418	-	-	110	295	1/Year	Grab
Methylene Chloride	34423	-	-	36	170	1/Year	Grab
Tetrachloroethylene	34475	-	-	52	164	1/Year	Grab
Toluene	34010	-	-	28	74	1/Year	Grab
1,2-trans-Dichloroethylene	34546	-	-	25	66	1/Year	Grab
1,1,1-Trichloroethane	34506	-	-	22	59	1/Year	Grab
1,1,2-Trichloroethane	34511	-	-	32	127	1/Year	Grab
Trichloroethylene	39180	-	-	26	69	1/Year	Grab
Vinyl Chloride	39175	-	-	97	172	1/Year	Grab
<u>Acid Compounds</u>							
2,4-Dimethylphenol	34606	-	-	19	47	1/Year	Grab
4,6-Dinitro-o-cresol	34657	-	-	78	277	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 551 continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
		(lb/day, unless stated)		Other Units		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
2,4-Dinitrophenol	34616	-	-	1207	4291	1/Year	Grab
2-Nitrophenol	34591	-	-	65	231	1/Year	Grab
4-Nitrophenol	34646	-	-	162	576	1/Year	Grab
Phenol	34694	-	-	19	47	1/Year	Grab
<b>Base Neutral Compounds</b>							
Acenaphthene	34205	-	-	19	47	1/Year	Grab
Acenaphthylene	34200	-	-	19	47	1/Year	Grab
Anthracene	34220	-	-	19	47	1/Year	Grab
Benzo(a)anthracene	34526	-	-	19	47	1/Year	Grab
Benzo(a)pyrene	34247	-	-	20	48	1/Year	Grab
3,4-Benzofluoranthene	34230	-	-	20	48	1/Year	Grab
Benzo(k)fluoranthene	34242	-	-	19	47	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	-	-	95	258	1/Year	Grab
Chrysene	34320	-	-	19	47	1/Year	Grab
1,2-Dichlorobenzene	34536	-	-	196	794	1/Year	Grab
1,3-Dichlorobenzene	34566	-	-	142	380	1/Year	Grab
1,4-Dichlorobenzene	34571	-	-	142	380	1/Year	Grab
Diethyl phthalate	34336	-	-	46	113	1/Year	Grab
Dimethyl phthalate	34341	-	-	19	47	1/Year	Grab
Di-n-butyl phthalate	39110	-	-	20	43	1/Year	Grab
Fluoranthene	34376	-	-	22	54	1/Year	Grab
Fluorene	34381	-	-	19	47	1/Year	Grab
Hexachlorobenzene	39700	-	-	196	794	1/Year	Grab
Hexachlorobutadiene	34391	-	-	142	380	1/Year	Grab
Hexachloroethane	34396	-	-	196	794	1/Year	Grab
Naphthalene	34696	-	-	19	47	1/Year	Grab
Nitrobenzene	34447	-	-	2237	6402	1/Year	Grab
Phenanthrene	34461	-	-	19	47	1/Year	Grab
Pyrene	34469	-	-	20	48	1/Year	Grab
1,2,4-Trichlorobenzene	34551	-	-	196	794	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 551 (741), at the point of discharge from the LHC II Plant on the western side of Block 48, prior to mixing with other waters in CWR Canal F at Latitude 30°19'27", Longitude 91°14'15".



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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 601 (117) (Canal G) (estimated total outfall flow is 25.9 MGD), this internal outfall consists of the continuous discharge of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, discharges from Internal Outfalls 631 (2001), 641 (3121), 621 (2241), 611 (1711), 651 (3001), and 551 (741), and discharges from embedded companies Air Products and Air Liquide. This internal outfall discharges to CWR Canal F, through Internal Outfall 501 (116) and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Storet Code	Other Units		Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
		(lb/day, unless stated)	(ug/l, unless stated)				
<b>Conventional/ Nonconventional</b>		<b>Monthly Average</b>	<b>Daily Maximum</b>	<b>Monthly Average</b>	<b>Daily Maximum</b>		
<b>Nonconventional</b>							
Flow - MGD	50050	Report	Report	-	-	1/Month	Estimate
TOC - mg/l	00680	-	-	-	50	1/Quarter	Grab
Oil and Grease-mg/l	03582	-	-	-	15	1/Quarter	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 601 (117), at the point of discharge from the southern end of CWR Canal G, prior to mixing with other waters in CWR Canal F at Latitude 30°19'25", Longitude 91°14'22".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 611 (1711) (Vinyl) (estimated total outfall flow is 4.16 MGD), this internal outfall consists of the continuous discharge of OCPSF process wastewater, OCPSF process area stormwater, once through cooling water, and utility wastewater from the Vinyl II Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
				Other Units			
		(lb/day, unless stated)		(ug/l, unless stated)			
<u>Conventional/</u> <u>Nonconventional</u>	<u>Storet</u> <u>Code</u>	<u>Monthly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>	<u>Monthly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample Type</u>
<u>Conventional</u>							
BOD <sub>5</sub>	00310	970	2,421	-	-	1/Quarter	Grab
TSS	00530	1,412	4,326	-	-	1/Quarter	Grab
<u>Nonconventional</u>							
Flow – MGD	50050	Report	Report	-	-	Continuous	Recorder
<u>Volatile Compounds</u>							
Acrylonitrile	34215	2.6	6.41	-	-	1/Year	Grab
Benzene	34030	1.58	3.7	-	-	1/Year	Grab
Carbon Tetrachloride	32102	3.92	10.5	-	-	1/Year	Grab
Chlorobenzene	34301	3.92	10.5	-	-	1/Year	Grab
Chloroethane	85811	3.04	8.15	-	-	1/Year	Grab
Chloroform	32106	3.07	8.98	-	-	1/Month	Grab
1,1-Dichloroethane	34496	0.61	1.63	-	-	1/Year	Grab
1,2-Dichloroethane	32103	4.97	15.9	-	-	1/Month	Grab
1,1-Dichloroethylene	34501	0.61	1.66	-	-	1/Year	Grab
1,2-Dichloropropane	34541	5.42	21.9	-	-	1/Year	Grab
1,3-Dichloropropylene	34561	5.42	21.9	-	-	1/Year	Grab
Ethylbenzene	34371	3.92	10.5	-	-	1/Year	Grab
Methyl Chloride	34418	3.04	8.15	-	-	1/Year	Grab
Methylene Chloride	34423	1	4.7	-	-	1/Year	Grab
Tetrachloroethylene	34475	1.44	4.53	-	-	1/Year	Grab
Toluene	34010	0.77	2.05	-	-	1/Year	Grab
1,2-trans-Dichloroethylene	34546	0.69	1.82	-	-	1/Year	Grab
1,1,1-Trichloroethane	34506	0.61	1.63	-	-	1/Year	Grab
1,1,2-Trichloroethane	34511	0.88	3.51	-	-	1/Year	Grab
Trichloroethylene	39180	0.72	1.91	-	-	1/Year	Grab
Vinyl Chloride	39175	2.68	4.75	-	-	1/Year	Grab
<u>Acid Compounds</u>							
2,4-Dimethylphenol	34606	0.53	1.3	-	-	1/Year	Grab

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**EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 611 continued)**

<u>Effluent Characteristic</u>	<u>Storet Code</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		<u>(lb/day, unless stated)</u>		<u>Other Units</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
		<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>		
4,6-Dinitro-o-cresol	34657	2.16	7.66	-	-	1/Year	Grab
2,4-Dinitrophenol	34616	33.4	119	-	-	1/Year	Grab
2-Nitrophenol	34591	1.8	6.38	-	-	1/Year	Grab
4-Nitrophenol	34646	4.48	15.9	-	-	1/Year	Grab
Phenol	34694	0.53	1.3	-	-	1/Year	Grab
<b><u>Base Neutral Compounds</u></b>							
Acenaphthene	34205	0.53	1.3	-	-	1/Year	Grab
Acenaphthylene	34200	0.53	1.3	-	-	1/Year	Grab
Anthracene	34220	0.53	1.3	-	-	1/Year	Grab
Benzo(a)anthracene	34526	0.53	1.3	-	-	1/Year	Grab
Benzo(a)pyrene	34247	0.55	1.33	-	-	1/Year	Grab
3,4-Benzofluoranthene	34230	0.55	1.33	-	-	1/Year	Grab
Benzo(k)fluoranthene	34242	0.53	1.3	-	-	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	2.63	7.13	-	-	1/Year	Grab
Chrysene	34320	0.53	1.3	-	-	1/Year	Grab
1,2-Dichlorobenzene	34536	5.42	21.9	-	-	1/Year	Grab
1,3-Dichlorobenzene	34566	3.92	10.5	-	-	1/Year	Grab
1,4-Dichlorobenzene	34571	3.92	10.5	-	-	1/Year	Grab
Diethyl phthalate	34336	1.27	3.12	-	-	1/Year	Grab
Dimethyl phthalate	34341	0.53	1.3	-	-	1/Year	Grab
Di-n-butyl phthalate	39110	0.55	1.19	-	-	1/Year	Grab
Fluoranthene	34376	0.61	1.49	-	-	1/Year	Grab
Fluorene	34381	0.53	1.3	-	-	1/Year	Grab
Hexachlorobenzene	39700	5.42	21.9	-	-	1/Year	Grab
Hexachlorobutadiene	34391	3.92	10.5	-	-	1/Year	Grab
Hexachloroethane	34396	5.42	21.9	-	-	1/Year	Grab
Naphthalene	34696	0.53	1.3	-	-	1/Year	Grab
Nitrobenzene	34447	61.8	177	-	-	1/Year	Grab
Phenanthrene	34461	0.53	1.3	-	-	1/Year	Grab
Pyrene	34469	0.55	1.33	-	-	1/Year	Grab
1,2,4-Trichlorobenzene	34551	5.42	21.9	-	-	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 611 (1711), at the point of discharge from the ditch at the northeast corner of the Vinyl II Plant in Block 66, prior to mixing with other waters in CWR Canal G at Latitude 30°19'26", Longitude 91°14'30".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 621 (2241) (LHC 3) (estimated total outfall flow is 0.409 MGD), this internal outfall consists of the intermittent discharge of OCPSF process wastewater, OCPSF process area stormwater, and utility wastewater from Light Hydrocarbons III Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>		
<u>Conventional/</u> <u>Nonconventional</u>	<u>Storet</u> <u>Code</u>	<u>(lb/day, unless stated)</u>		<u>Other Units</u> <u>(ug/l, unless stated)</u>		<u>Measurement</u> <u>Frequency</u>	<u>Sample Type</u>
		<u>Monthly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>	<u>Monthly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>		
<u>Conventional</u>							
BOD <sub>5</sub> - mg/l	00310	-	-	30	80	1/Quarter	Grab
TSS - mg/l	00530	-	-	46	149	1/Quarter	Grab
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Week	Estimate
<u>Volatile Compounds</u>							
Acrylonitrile	34215	-	-	94	232	1/Year	Grab
Benzene	34030	-	-	57	134	1/Year	Grab
Carbon Tetrachloride	32102	-	-	142	380	1/Year	Grab
Chlorobenzene	34301	-	-	142	380	1/Year	Grab
Chloroethane	85811	-	-	110	295	1/Year	Grab
Chloroform	32106	-	-	111	325	1/Year	Grab
1,1-Dichloroethane	34496	-	-	22	59	1/Year	Grab
1,2-Dichloroethane	32103	-	-	180	574	1/Year	Grab
1,1-Dichloroethylene	34501	-	-	22	60	1/Year	Grab
1,2-Dichloropropane	34541	-	-	196	794	1/Year	Grab
1,3-Dichloropropylene	34561	-	-	196	794	1/Year	Grab
Ethylbenzene	34371	-	-	142	380	1/Year	Grab
Methyl Chloride	34418	-	-	110	295	1/Year	Grab
Methylene Chloride	34423	-	-	36	170	1/Year	Grab
Tetrachloroethylene	34475	-	-	52	164	1/Year	Grab
Toluene	34010	-	-	28	74	1/Year	Grab
1,2-trans-Dichloroethylene	34546	-	-	25	66	1/Year	Grab
1,1,1-Trichloroethane	34506	-	-	22	59	1/Year	Grab
1,1,2-Trichloroethane	34511	-	-	32	127	1/Year	Grab
Trichloroethylene	39180	-	-	26	69	1/Year	Grab
Vinyl Chloride	39175	-	-	97	172	1/Year	Grab
<u>Acid Compounds</u>							
2,4-Dimethylphenol	34606	-	-	19	47	1/Year	Grab
4,6-Dinitro-o-cresol	34657	-	-	78	277	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 621 continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
		(lb/day, unless stated)		Other Units		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	(ug/l, unless stated) Monthly Average	Daily Maximum		
2,4-Dinitrophenol	34616	-	-	1207	4291	1/Year	Grab
2-Nitrophenol	34591	-	-	65	231	1/Year	Grab
4-Nitrophenol	34646	-	-	162	576	1/Year	Grab
Phenol	34694	-	-	19	47	1/Year	Grab
<b>Base Neutral Compounds</b>							
Acenaphthene	34205	-	-	19	47	1/Year	Grab
Acenaphthylene	34200	-	-	19	47	1/Year	Grab
Anthracene	34220	-	-	19	47	1/Year	Grab
Benzo(a)anthracene	34526	-	-	19	47	1/Year	Grab
Benzo(a)pyrene	34247	-	-	20	48	1/Year	Grab
3,4-Benzofluoranthene	34230	-	-	20	48	1/Year	Grab
Benzo(k)fluoranthene	34242	-	-	19	47	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	-	-	95	258	1/Year	Grab
Chrysene	34320	-	-	19	47	1/Year	Grab
1,2-Dichlorobenzene	34536	-	-	196	794	1/Year	Grab
1,3-Dichlorobenzene	34566	-	-	142	380	1/Year	Grab
1,4-Dichlorobenzene	34571	-	-	142	380	1/Year	Grab
Diethyl phthalate	34336	-	-	46	113	1/Year	Grab
Dimethyl phthalate	34341	-	-	19	47	1/Year	Grab
Di-n-butyl phthalate	39110	-	-	20	43	1/Year	Grab
Fluoranthene	34376	-	-	22	54	1/Year	Grab
Fluorene	34381	-	-	19	47	1/Year	Grab
Hexachlorobenzene	39700	-	-	196	794	1/Year	Grab
Hexachlorobutadiene	34391	-	-	142	380	1/Year	Grab
Hexachloroethane	34396	-	-	196	794	1/Year	Grab
Naphthalene	34696	-	-	19	47	1/Year	Grab
Nitrobenzene	34447	-	-	2237	6402	1/Year	Grab
Phenanthrene	34461	-	-	19	47	1/Year	Grab
Pyrene	34469	-	-	20	48	1/Year	Grab
1,2,4-Trichlorobenzene	34551	-	-	196	794	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 621 (2241), at the point of discharge from the central sump located at the southeast corner of the LHC III Plant in Block 68, prior to mixing with other waters in CWR Canal G at Latitude 30°19'30", Longitude 91°14'28".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the shutdown of the Vinyl II Plant (including cessation of discharges from the plant) the permittee is authorized to discharge from:

Internal Outfall 631 (2001) (WW Treatment) (Phase I) (estimated total outfall flow is 17.9 MGD), this internal outfall consists of the continuous discharge of OCPSF process wastewater (including wastewater from the INEOS facility), OCPSF process area stormwater, sanitary wastewater, utility wastewater, and OCPSF wastewater (landfill operations) from the Environmental Operation Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic		Discharge Limitations		Other Units		Monitoring Requirements	
Conventional/ Nonconventional	Storet Code	(lb/day, unless stated)		(ug/l, unless stated)		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
<b>Conventional</b>							
BOD <sub>5</sub>	00310	4,516	11,814	-	-	3/Week	24 Hr Composite
TSS	00530	6,710	21,356	-	-	4/Week	24 Hr Composite
<b>Nonconventional</b>							
Flow – MGD	50050	Report	Report	-	-	Continuous	Recorder
<b>Metals</b>							
Total Copper	01042	471	202	-	-	1/Week	Grab
<b>Volatile Compounds</b>							
Acrylonitrile	34215	13.4	33.7	-	-	1/Year	Grab
Benzene	34030	5.15	18.9	-	-	1/Year	Grab
Carbon Tetrachloride	32102	2.51	5.29	-	-	1/Year	Grab
Chlorobenzene	34301	2.09	3.9	-	-	1/Year	Grab
Chloroethane	85811	14.5	37.3	-	-	1/Year	Grab
Chloroform	32106	2.92	6.41	-	-	1/Week	24 Hr Composite
1,1-Dichloroethane	34496	3.06	8.22	-	-	1/Year	Grab
1,2-Dichloroethane	32103	9.5	29.4	-	-	2/Month	24 Hr Composite
1,1-Dichloroethylene	34501	2.23	3.48	-	-	1/Year	Grab
1,2-Dichloropropane	34541	21.3	32	-	-	2/Month	24 Hr Composite
1,3-Dichloropropylene	34561	4.04	6.13	-	-	1/Week	24 Hr Composite
Ethylbenzene	34371	4.46	15	-	-	1/Year	Grab
Methyl Chloride	34418	12	26.5	-	-	2/Month	24 Hr Composite
Methylene Chloride	34423	5.57	12.4	-	-	1/Month	24 Hr Composite
Tetrachloroethylene	34475	3.06	7.8	-	-	1/Year	Grab
Toluene	34010	3.62	11.1	-	-	1/Year	Grab
1,2-trans-Dichloroethylene	34546	2.92	7.52	-	-	1/Year	Grab
1,1,1-Trichloroethane	34506	2.92	7.52	-	-	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 631- Phase I continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
		(lb/day, unless stated)		Other Units		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
1,1,2-Trichloroethane	34511	2.92	7.52	-	-	1/Year	Grab
Trichloroethylene	39180	2.92	7.52	-	-	1/Year	Grab
Vinyl Chloride	39175	14.5	37.3	-	-	1/Year	Grab
<b>Acid Compounds</b>							
2-Chlorophenol	34586	4.32	13.6	-	-	1/Year	Grab
2,4-Dichlorophenol	34601	5.43	15.6	-	-	1/Year	Grab
2,4-Dimethylphenol	34606	2.51	5.01	-	-	1/Year	Grab
4,6-Dinitro-o-cresol	34657	10.9	38.6	-	-	1/Year	Grab
2,4-Dinitrophenol	34616	9.9	17.1	-	-	1/Year	Grab
2-Nitrophenol	34591	5.71	9.6	-	-	1/Year	Grab
4-Nitrophenol	34646	10	17.3	-	-	1/Year	Grab
Phenol	34694	2.09	3.62	-	-	1/Year	Grab
<b>Base Neutral Compounds</b>							
Acenaphthene	34205	3.06	8.22	-	-	1/Year	Grab
Acenaphthylene	34200	3.06	8.22	-	-	1/Year	Grab
Anthracene	34220	3.06	8.22	-	-	1/Year	Grab
Benzo(a)anthracene	34526	3.06	8.22	-	-	1/Year	Grab
Benzo(a)pyrene	34247	3.2	8.5	-	-	1/Year	Grab
3,4-Benzofluoranthene	34230	3.2	8.5	-	-	1/Year	Grab
Benzo(k)fluoranthene	34242	3.06	8.22	-	-	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	14.3	38.9	-	-	1/Year	Grab
Chrysene	34320	3.06	8.22	-	-	1/Year	Grab
1,2-Dichlorobenzene	34536	10.7	22.7	-	-	1/Year	Grab
1,3-Dichlorobenzene	34566	4.32	6.13	-	-	1/Year	Grab
1,4-Dichlorobenzene	34571	2.09	3.9	-	-	1/Year	Grab
Diethyl phthalate	34336	11.3	28.3	-	-	1/Year	Grab
Dimethyl phthalate	34341	2.65	6.55	-	-	1/Year	Grab
Di-n-butyl phthalate	39110	3.76	7.94	-	-	1/Year	Grab
2,4-Dinitrotoluene	34611	15.7	39.7	-	-	1/Year	Grab
2,6-Dinitrotoluene	34626	35.5	89	-	-	1/Year	Grab
Fluoranthene	34376	3.48	9.5	-	-	1/Year	Grab
Fluorene	34381	3.46	9.28	-	-	1/Year	Grab
Hexachlorobenzene	39700	2.09	3.9	-	-	1/Year	Grab
Hexachlorobutadiene	34391	2.79	6.82	-	-	1/Year	Grab
Hexachloroethane	34396	2.92	7.52	-	-	1/Year	Grab
Naphthalene	34696	3.06	8.22	-	-	1/Year	Grab
Nitrobenzene	34447	3.76	9.5	-	-	1/Year	Grab
Phenanthrene	34461	3.06	8.22	-	-	1/Year	Grab
Pyrene	34469	3.48	9.3	-	-	1/Year	Grab

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**EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 631- Phase I continued)**

<u>Effluent Characteristic</u>	<u>Storet Code</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		<u>(lb/day, unless stated)</u>		<u>Other Units</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
		<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>(uq/l, unless stated)</u>	<u>Monthly Average</u>		
				<u>Daily Maximum</u>			
1,2,4-Trichlorobenzene	34551	9.5	19.5	-	-	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 631 (2001), at the point of discharge from the effluent ditch in associated with the Environmental Operations in Block 80, prior to mixing with other waters in CWR Canal G at Latitude 30°19'53", Longitude 91°14'22".

FOOTNOTE(S):

- (\*1) The permittee shall notify the Office of Environmental Services, the Office of Environmental Compliance – Permit Compliance Unit, and the Capital Regional Office in writing at least 30 days prior to discharging under the Phase II conditions.



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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the shutdown of the Vinyl II Plant (including cessation of discharges from the plant) and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 631 (2001) (WW Treatment) (Phase II) (estimated total outfall flow is 17.6 MGD), this internal outfall consists of the continuous discharge of OCP5F process wastewater (including wastewater from the INEOS facility), OCP5F process area stormwater, sanitary wastewater, utility wastewater, and OCP5F wastewater (landfill operations) from the Environmental Operation Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic		Discharge Limitations		Other Units		Monitoring Requirements	
Conventional/ Nonconventional	Storet Code	(lb/day, unless stated)		(ug/l, unless stated)		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
<u>Conventional</u>							
BOD <sub>5</sub>	00310	4,502	11,780	-	-	3/Week	24 Hr Composite
TSS	00530	6,650	21,158	-	-	4/Week	24 Hr Composite
<u>Nonconventional</u>							
Flow – MGD	50050	Report	Report	-	-	Continuous	Recorder
<u>Metals</u>							
Total Copper	01042	198	462	-	-	1/Week	Grab
<u>Volatile Compounds</u>							
Acrylonitrile	34215	13.2	33.2	-	-	1/Year	Grab
Benzene	34030	5.07	18.6	-	-	1/Year	Grab
Carbon Tetrachloride	32102	2.47	5.21	-	-	1/Year	Grab
Chlorobenzene	34301	2.06	3.84	-	-	1/Year	Grab
Chloroethane	85811	14.3	36.7	-	-	1/Year	Grab
Chloroform	32106	2.88	6.31	-	-	1/Week	24 Hr Composite
1,1-Dichloroethane	34496	3.02	8.09	-	-	1/Year	Grab
1,2-Dichloroethane	32103	9.3	28.9	-	-	1/Year	24 Hr Composite
1,1-Dichloroethylene	34501	2.19	3.43	-	-	1/Year	Grab
1,2-Dichloropropane	34541	21	31.5	-	-	2/Month	24 Hr Composite
1,3-Dichloropropylene	34561	3.97	6.03	-	-	1/Week	24 Hr Composite
Ethylbenzene	34371	4.39	14.8	-	-	1/Year	Grab
Methyl Chloride	34418	11.8	26	-	-	2/Month	24 Hr Composite
Methylene Chloride	34423	5.48	12.2	-	-	1/Month	24 Hr Composite
Tetrachloroethylene	34475	3.02	7.68	-	-	1/Year	Grab
Toluene	34010	3.56	11	-	-	1/Year	Grab
1,2-trans-Dichloroethylene	34546	2.88	7.4	-	-	1/Year	Grab
1,1,1-Trichloroethane	34506	2.88	7.4	-	-	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 631 – Phase II continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
		(lb/day, unless stated)		Other Units		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
1,1,2-Trichloroethane	34511	2.88	7.4	-	-	1/Year	Grab
Trichloroethylene	39180	2.88	7.4	-	-	1/Year	Grab
Vinyl Chloride	39175	14.3	36.7	-	-	1/Year	Grab
<b>Acid Compounds</b>							
2-Chlorophenol	34586	4.25	13.4	-	-	1/Year	Grab
2,4-Dichlorophenol	34601	5.35	15.4	-	-	1/Year	Grab
2,4-Dimethylphenol	34606	2.47	4.93	-	-	1/Year	Grab
4,6-Dinitro-o-cresol	34657	10.7	38	-	-	1/Year	Grab
2,4-Dinitrophenol	34616	9.7	16.9	-	-	1/Year	Grab
2-Nitrophenol	34591	5.62	9.5	-	-	1/Year	Grab
4-Nitrophenol	34646	9.9	17	-	-	1/Year	Grab
Phenol	34694	2.06	3.56	-	-	1/Year	Grab
<b>Base Neutral Compounds</b>							
Acenaphthene	34205	3.02	8.09	-	-	1/Year	Grab
Acenaphthylene	34200	3.02	8.09	-	-	1/Year	Grab
Anthracene	34220	3.02	8.09	-	-	1/Year	Grab
Benzo(a)anthracene	34526	3.02	8.09	-	-	1/Year	Grab
Benzo(a)pyrene	34247	3.15	8.36	-	-	1/Year	Grab
3,4-Benzofluoranthene	34230	3.15	8.36	-	-	1/Year	Grab
Benzo(k)fluoranthene	34242	3.02	8.09	-	-	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	14.1	38.2	-	-	1/Year	Grab
Chrysene	34320	3.02	8.09	-	-	1/Year	Grab
1,2-Dichlorobenzene	34536	10.6	22.3	-	-	1/Year	Grab
1,3-Dichlorobenzene	34566	4.25	6.03	-	-	1/Year	Grab
1,4-Dichlorobenzene	34571	2.06	3.84	-	-	1/Year	Grab
Diethyl phthalate	34336	11.1	27.8	-	-	1/Year	Grab
Dimethyl phthalate	34341	2.60	6.44	-	-	1/Year	Grab
Di-n-butyl phthalate	39110	3.7	7.81	-	-	1/Year	Grab
2,4-Dinitrotoluene	34611	15.5	39.1	-	-	1/Year	Grab
2,6-Dinitrotoluene	34626	35	88	-	-	1/Year	Grab
Fluoranthene	34376	3.43	9.3	-	-	1/Year	Grab
Fluorene	34381	3.02	8.09	-	-	1/Year	Grab
Hexachlorobenzene	39700	2.06	3.84	-	-	1/Year	Grab
Hexachlorobutadiene	34391	2.74	6.72	-	-	1/Year	Grab
Hexachloroethane	34396	2.88	7.4	-	-	1/Year	Grab
Naphthalene	34696	3.02	8.09	-	-	1/Year	Grab
Nitrobenzene	34447	3.7	9.3	-	-	1/Year	Grab
Phenanthrene	34461	3.02	8.09	-	-	1/Year	Grab
Pyrene	34469	3.43	9.2	-	-	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 631 – Phase II continued)

<u>Effluent Characteristic</u>	<u>Storet Code</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
		<u>(lb/day, unless stated)</u>		<u>Other Units</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
		<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>(ug/l, unless stated)</u>	<u>Daily Maximum</u>		
				<u>Monthly Average</u>			
1,2,4-Trichlorobenzene	34551	9.3	19.2	-	-	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 631 (2001), at the point of discharge from the effluent ditch in associated with the Environmental Operations in Block 80, prior to mixing with other waters in CWR Canal G at Latitude 30°19'53", Longitude 91°14'22".

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**EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)**

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 641 (3121) (Poly C) (estimated total outfall flow is 0.568 MGD), this internal outfall consists of the continuous discharge of OCPSF process wastewater, OCPSF process area stormwater, and utility wastewater from the Polyethylene C Plant. This internal outfall discharges to the CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u><b>Effluent Characteristic</b></u>		<u><b>Discharge Limitations</b></u>				<u><b>Monitoring Requirements</b></u>	
<u><b>Conventional/ Nonconventional</b></u>	<u><b>Storet Code</b></u>	<u><b>(lb/day, unless stated)</b></u>		<u><b>Other Units (uq/l, unless stated)</b></u>		<u><b>Measurement Frequency</b></u>	<u><b>Sample Type</b></u>
		<u><b>Monthly Average</b></u>	<u><b>Daily Maximum</b></u>	<u><b>Monthly Average</b></u>	<u><b>Daily Maximum</b></u>		
<u><b>Conventional</b></u>							
BOD <sub>5</sub>	00310	101	194	-	-	1/Quarter	Grab
TSS	00530	126	294	-	-	1/Quarter	Grab
<u><b>Nonconventional</b></u>							
Flow - MGD	50050	Report	Report	-	-	1/Week	Estimate
<u><b>Volatile Compounds</b></u>							
Acrylonitrile	34215	0.14	0.35	-	-	1/Year	Grab
Benzene	34030	0.09	0.2	-	-	1/Year	Grab
Carbon Tetrachloride	32102	0.22	0.58	-	-	1/Year	Grab
Chlorobenzene	34301	0.22	0.58	-	-	1/Year	Grab
Chloroethane	85811	0.17	0.45	-	-	1/Year	Grab
Chloroform	32106	0.17	0.49	-	-	1/Year	Grab
1,1-Dichloroethane	34496	0.03	0.09	-	-	1/Year	Grab
1,2-Dichloroethane	32103	0.27	0.87	-	-	1/Year	Grab
1,1-Dichloroethylene	34501	0.03	0.09	-	-	1/Year	Grab
1,2-Dichloropropane	34541	0.3	1.2	-	-	1/Year	Grab
1,3-Dichloropropylene	34561	0.3	1.2	-	-	1/Year	Grab
Ethylbenzene	34371	0.22	0.58	-	-	1/Year	Grab
Methyl Chloride	34418	0.17	0.45	-	-	1/Year	Grab
Methylene Chloride	34423	0.06	0.26	-	-	1/Year	Grab
Tetrachloroethylene	34475	0.08	0.25	-	-	1/Year	Grab
Toluene	34010	0.04	0.11	-	-	1/Year	Grab
1,2-trans-Dichloroethylene	34546	0.04	0.1	-	-	1/Year	Grab
1,1,1-Trichloroethane	34506	0.03	0.09	-	-	1/Year	Grab
1,1,2-Trichloroethane	34511	0.05	0.19	-	-	1/Year	Grab
Trichloroethylene	39180	0.04	0.11	-	-	1/Year	Grab
Vinyl Chloride	39175	0.15	0.26	-	-	1/Year	Grab
<u><b>Acid Compounds</b></u>							
2,4-Dimethylphenol	34606	0.03	0.07	-	-	1/Year	Grab
4,6-Dinitro-o-cresol	34657	0.12	0.42	-	-	1/Year	Grab

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 641 continued)

Effluent Characteristic	Storet Code	Discharge Limitations				Monitoring Requirements	
		(lb/day, unless stated)		Other Units		Measurement Frequency	Sample Type
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
2,4-Dinitrophenol	34616	1.83	6.5	-	-	1/Year	Grab
2-Nitrophenol	34591	0.1	0.35	-	-	1/Year	Grab
4-Nitrophenol	34646	0.25	0.87	-	-	1/Year	Grab
Phenol	34694	0.03	0.07	-	-	1/Year	Grab
<b>Base Neutral Compounds</b>							
Acenaphthene	34205	0.03	0.07	-	-	1/Year	Grab
Acenaphthylene	34200	0.03	0.07	-	-	1/Year	Grab
Anthracene	34220	0.03	0.07	-	-	1/Year	Grab
Benzo(a)anthracene	34526	0.03	0.07	-	-	1/Year	Grab
Benzo(a)pyrene	34247	0.03	0.07	-	-	1/Year	Grab
3,4-Benzofluoranthene	34230	0.03	0.07	-	-	1/Year	Grab
Benzo(k)fluoranthene	34242	0.03	0.07	-	-	1/Year	Grab
Bis(2-ethylhexyl) phthalate	39100	0.14	0.39	-	-	1/Year	Grab
Chrysene	34320	0.03	0.07	-	-	1/Year	Grab
1,2-Dichlorobenzene	34536	0.3	1.2	-	-	1/Year	Grab
1,3-Dichlorobenzene	34566	0.22	0.58	-	-	1/Year	Grab
1,4-Dichlorobenzene	34571	0.22	0.58	-	-	1/Year	Grab
Diethyl phthalate	34336	0.07	0.17	-	-	1/Year	Grab
Dimethyl phthalate	34341	0.03	0.07	-	-	1/Year	Grab
Di-n-butyl phthalate	39110	0.03	0.07	-	-	1/Year	Grab
Fluoranthene	34376	0.033	0.08	-	-	1/Year	Grab
Fluorene	34381	0.03	0.07	-	-	1/Year	Grab
Hexachlorobenzene	39700	0.3	1.2	-	-	1/Year	Grab
Hexachlorobutadiene	34391	0.22	0.58	-	-	1/Year	Grab
Hexachloroethane	34396	0.3	1.2	-	-	1/Year	Grab
Naphthalene	34696	0.03	0.07	-	-	1/Year	Grab
Nitrobenzene	34447	3.39	9.7	-	-	1/Year	Grab
Phenanthrene	34461	0.03	0.07	-	-	1/Year	Grab
Pyrene	34469	0.03	0.07	-	-	1/Year	Grab
1,2,4-Trichlorobenzene	34551	0.3	1.2	-	-	1/Year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 641 (3121), at the point of discharge from the effluent weir at the pond located on the northern side of the Polyethylene C Plant in Block 86, prior to mixing with other waters in CWR Canal G at Latitude 30°19'38", Longitude 91°14'40".

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# **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)**

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Internal Outfall 651 (3001) (SW Landfill) (estimated total outfall flow is 0.047 MGD), this internal outfall consists of the continuous discharge of recovered groundwater from the Northwest Landfill. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirements</u>	
		<u>Other Units</u>					
		<u>(lb/day, unless stated)</u>		<u>(ug/l, unless stated)</u>			
<u>Conventional/ Nonconventional</u>	<u>Storet Code</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
<u>Nonconventional</u>							
Flow - MGD	50050	Report	Report	-	-	1/Month	Estimate
TOC -- mg/l	00680	-	-	N/A	55	1/Quarter	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 651 (3001), at the point of discharge from the pump at the Northwest Landfill on the northern side of the Polyethylene C Plant in Block 86 at the discharge piping, prior to mixing with other waters in CWR Canal G at Latitude 30°20'03", Longitude 91°15'02".

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# EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

During the period beginning the effective date and lasting through the expiration date the permittee is authorized to discharge from:

Outfall 002 (Final) (estimated total outfall flow is 0.211 MGD), this final outfall consists of the continuous discharge from Tank Farm Block 110 to the Mississippi River. Discharge sources include secondary containment stormwater and utility wastewater.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
<u>Conventional/ Nonconventional</u>	<u>Storet Code</u>	<u>Other Units</u>				<u>Measurement Frequency</u>	<u>Sample Type</u>
		<u>(lb/day, unless stated)</u>		<u>(ug/l, unless stated)</u>			
		<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>		
<u>Nonconventional</u>							
Flow – MGD	50050	Report	Report	-	-	1/Month	Estimate
TOC – mg/l	00680	-	-	-	55	1/Quarter	Grab
pH Minimum/Maximum	00400	-	-	6.0	9.0	1/Month	Grab
Values (Standard Units)				(Min)	(Max)		

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 002, at the point of discharge from the south end of the oil water separator in Tank Farm Block 110, prior to pumping the discharge over the levee and into the Mississippi River at Latitude 30°20'25", Longitude 91°14'30".

## FOOTNOTE(S):

(\*1) The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

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## PART II

### OTHER REQUIREMENTS

In addition to the standard conditions required in all permits and listed in Part III, the Office has established the following additional requirements in accordance with the Louisiana Water Quality Regulations.

- A. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations or additional restrictions, if necessary, to maintain the water quality integrity and the designated uses of the receiving water bodies.
- B. This permit does not in any way authorize the permittee to discharge a pollutant not listed or quantified in the application or limited or monitored for in the permit.
- C. Authorization to discharge pursuant to the conditions of this permit does not relieve the permittee of any liability for damages to state waters or private property. For discharges to private land, this permit does not relieve the permittee from obtaining proper approval from the landowner for appropriate easements and rights of way.
- D. For definitions of monitoring and sampling terminology see Part III, Section-F.
- E. 24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS

Under the provisions of Part III.D.6.e.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to the Office of Environmental Compliance within 24 hours from the time the permittee became aware of the violation followed by a written report in five days.

#### METALS

Total Copper

#### VOLATILE COMPOUNDS

Acrylonitrile  
Benzene  
Carbon Tetrachloride  
Chlorobenzene  
Chloroethane  
Chloroform  
1,1-Dichloroethane  
1,2-Dichloroethane  
1,1-Dichloroethylene  
1,2-trans-Dichloroethylene  
1,2-Dichloropropane  
1,3-Dichloropropylene  
Ethylbenzene  
Methyl Chloride  
Methylene Chloride  
Tetrachloroethylene  
Toluene  
1,1,1-Trichloroethane  
1,1,2-Trichloroethane  
Trichloroethylene



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Vinyl Chloride

ACID COMPOUNDS

2-Chlorophenol  
2,4-Dichlorophenol  
2,4-Dimethylphenol  
4,6-Dinitro-o-cresol  
2,4-Dinitrophenol  
2-Nitrophenol  
4-Nitrophenol  
Phenol

BASE NEUTRAL COMPOUNDS

Acenaphthene  
Acenaphthylene  
Anthracene  
Benzo(a)anthracene  
Benzo(a)pyrene  
3,4-Benzofluoranthene  
Benzo(k)fluoranthene  
Bis(2-ethylhexyl)phthalate  
Chrysene  
1,2-Dichlorobenzene  
1,3-Dichlorobenzene  
1,4-Dichlorobenzene  
Diethyl phthalate  
Dimethyl phthalate  
Di-n-butyl phthalate  
2,4-Dinitrotoluene  
2,6-Dinitrotoluene  
Fluoranthene  
Fluorene  
Hexachlorobenzene  
Hexachlorobutadiene  
Hexachloroethane  
Naphthalene  
Nitrobenzene  
Phenanthrene  
Pyrene  
1,2,4-Trichlorobenzene

F. COMPOSITE SAMPLING (24-HOUR)

1. STANDARD PROVISIONS

Unless otherwise specified in this permit, the term "24-hour composite sample" means a sample consisting of a minimum of four (4) aliquots of effluent collected at regular intervals over a normal 24-hour operating day and combined in proportion to flow or a sample continuously collected in proportion to flow over a normal 24-hour operating period.

2. VOLATILE COMPOUNDS

For the "24-hour composite" sampling of volatile compounds using EPA Methods 601, 602, 603, 624, 1624, or any other 40 CFR Part 136 (See IAC 33:IX.4901) method approved after the effective date of the permit, the permittee shall manually collect four (4) aliquots (grab samples) in clean zero head-space containers at regular intervals during the actual hours of discharge during the 24-hour sampling period using sample collection, preservation, and

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handling techniques specified in the test method. These aliquots must be combined in the laboratory to represent the composite sample of the discharge. One of the following alternative methods shall be used to composite these aliquots.

- a. Each aliquot is poured into a syringe. The plunger is added, and the volume in the syringe is adjusted to 1-1/4 ml. Each aliquot (1-1/4 ml.) is injected into the purging chamber of the purge and trap system. After four (4) injections (total 5 ml.), the chamber is purged. Only one analysis or run is required since the aliquots are combined prior to analysis.
- b. Chill the four (4) aliquots to 4 Degrees Centigrade. These aliquots must be of equal volume. Carefully pour the contents of each of the four aliquots into a 250-500 ml. flask which is chilled in a wet ice bath. Stir the mixture gently with a clean glass rod while in the ice bath. Carefully fill two (2) or more clean 40 ml. zero head-space vials from the flask and dispose of the remainder of the mixture. Analyze one of the aliquots to determine the concentration of the composite sample. The remaining aliquot(s) are replicate composite samples that can be analyzed if desired or necessary.
- c. Alternative sample compositing methods may be used following written approval by this Office.

The individual samples resulting from the application of these compositing methods shall be analyzed following the procedures specified for the selected test method. The resulting analysis shall be reported as the daily composite concentration.

As an option to the above compositing methods, the permittee may manually collect four (4) aliquots (grab samples) in clean zero head-space containers at regular intervals during the actual hours of discharge during the 24-hour sampling period using sample collection, preservation, and handling techniques specified in the test method. A separate analysis shall be conducted for each discrete grab sample following the approved test methods. The determination of daily composite concentration shall be the arithmetic average (weighted by flow) of all grab samples collected during the 24-hour sampling period.

G. 40 CFR PART 136 (See LAC 33:IX.4901) ANALYTICAL REQUIREMENTS

Unless otherwise specified in this permit, monitoring shall be conducted according to analytical, apparatus and materials, sample collection, preservation, handling, etc., procedures listed at 40 CFR Part 136, and in particular, Appendices A, B, and C (See LAC 33:IX.4901).

H. FLOW MEASUREMENT "ESTIMATE" SAMPLE TYPE

If the flow measurement sample type in Part I is specified as "estimate", flow measurements shall not be subject to the accuracy provisions established at Part III.C.6 of this permit. The daily flow value may be estimated using best engineering judgement.

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#### I. pH RANGE EXCURSION PROVISIONS

Where a permittee continuously measures the pH of wastewater as a requirement or option in a Louisiana Pollutant Discharge Elimination System (LPDES) permit, the permittee shall maintain the pH of such wastewater within the range set forth in the permit, except that excursions from the range are permitted, provided:

1. The total time during which the pH values are outside the required range of pH values shall not exceed 446 minutes in any calendar month; and
2. No individual excursion from the range of pH values shall exceed 60 minutes.

For the purposes of this section, an "excursion" is an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the permit.

#### J. MINIMUM QUANTIFICATION LEVEL (MQL)

If any individual analytical test result is less than the minimum quantification level listed below, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

<u>NONCONVENTIONAL</u>	<u>MQL (µg/L)</u>
Phenolics, Total Recoverable (4AAP)	5
Chlorine (Total Residual)	100
3-Chlorophenol	10
4-Chlorophenol	10
2,3-Dichlorophenol	10
2,5-Dichlorophenol	10
2,6-Dichlorophenol	10
3,4-Dichlorophenol	10
2,4-D	10
2,4,5-TP (Silvex)	4

<u>METALS AND CYANIDE</u>	<u>MQL (µg/L)</u>
Antimony (Total)	60
Arsenic (Total)	10
Beryllium (Total)	5
Cadmium (Total)	1
Chromium (Total)	10
Chromium (3+)	10
Chromium (6+)	10
Copper (Total)	10
Lead (Total)	5
Mercury (Total)	0.2
Molybdenum (Total)	30
Nickel (Total) Freshwater	40
Nickel (Total) Marine	5
Selenium (Total)	5
Silver (Total)	2
Thallium (Total)	10
Zinc (Total)	20
Cyanide (Total)	20

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DIOXIN

2,3,7,8-TCDD

MQL (µg/L)

0.00001

VOLATILE COMPOUNDSMQL (µg/L)

Acrolein	50
Acrylonitrile	50
Benzene	10
Bromoform	10
Carbon Tetrachloride	10
Chlorobenzene	10
Chlorodibromomethane	10
Chloroethane	50
2-Chloroethylvinylether	10
Chloroform	10
Dichlorobromomethane	10
1,1-Dichloroethane	10
1,2-Dichloroethane	10
1,1-Dichloroethylene	10
1,2-Dichloropropane	10
1,3-Dichloropropylene	10
Ethylbenzene	10
Methyl Bromide [Bromomethane]	50
Methyl Chloride [Chloromethane]	50
Methylene Chloride	20
1,1,2,2-Tetrachloroethane	10
Tetrachloroethylene	10
Toluene	10
1,2-trans-Dichloroethylene	10
1,1,1-Trichloroethane	10
1,1,2-Trichloroethane	10
Trichloroethylene	10
Vinyl Chloride	10

ACID COMPOUNDSMQL (µg/L)

2-Chlorophenol	10
2,4-Dichlorophenol	10
2,4-Dimethylphenol	10
4,6-Dinitro-o-Cresol [2-Methyl-4,6-Dinitrophenol]	50
2,4-Dinitrophenol	50
2-Nitrophenol	20
4-Nitrophenol	50
p-Chloro-m-Cresol [4-Chloro-3-Methylphenol]	10
Pentachlorophenol	50
Phenol	10
2,4,6-Trichlorophenol	10

BASE/NEUTRAL COMPOUNDSMQL (µg/L)

Acenaphthene	10
Acenaphthylene	10
Anthracene	10
Benzidine	50
Benzo(a)anthracene	10
Benzo(a)pyrene	10
3,4-Benzofluoranthene	10
Benzo(ghi)perylene	20
Benzo(k)fluoranthene	10
Bis(2-chloroethoxy) Methane	10
Bis(2-chloroethyl) Ether	10
Bis(2-chloroisopropyl) Ether	10

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Bis(2-ethylhexyl) Phthalate	10
4-Bromophenyl Phenyl Ether	10
Butylbenzyl Phthalate	10
2-Chloronaphthalene	10
4-Chlorophenyl Phenyl Ether	10
Chrysene	10
Dibenzo(a,h)anthracene	20
1,2-Dichlorobenzene	10
1,3-Dichlorobenzene	10
1,4-Dichlorobenzene	10
3,3'-Dichlorobenzidine	50
Diethyl Phthalate	10
Dimethyl Phthalate	10
Di-n-Butyl Phthalate	10
2,4-Dinitrotoluene	10
2,6-Dinitrotoluene	10
Di-n-octyl Phthalate	10
1,2-Diphenylhydrazine	20
Fluoranthene	10
Fluorene	10
Hexachlorobenzene	10
Hexachlorobutadiene	10
Hexachlorocyclopentadiene	10
Hexachloroethane	20
Indeno(1,2,3-cd)pyrene [2,3-o-Phenylene Pyrene]	20
Isophorone	10
Naphthalene	10
Nitrobenzene	10
n-Nitrosodimethylamine	50
n-Nitrosodi-n-Propylamine	20
n-Nitrosodiphenylamine	20
Phenanthrene	10
Pyrene	10
1,2,4-Trichlorobenzene	10

<u>PESTICIDES</u>	<u>ML (µg/L)</u>
Aldrin	0.05
Alpha-BHC	0.05
Beta-BHC	0.05
Gamma-BHC [Lindane]	0.05
Delta-BHC	0.05
Chlordane	0.2
4,4'-DDT	0.1
4,4'-DDE [p,p-DDX]	0.1
4,4'-DDD [p,p-TDE]	0.1
Dieldrin	0.1
Alpha-Endosulfan	0.1
Beta-Endosulfan	0.1
Endosulfan Sulfate	0.1
Endrin	0.1
Endrin Aldehyde	0.1
Heptachlor	0.05
Heptachlor Epoxide [BHC-Hexachlorocyclohexane]	0.05
PCB-1242	1.0
PCB-1254	1.0
PCB-1221	1.0
PCB-1232	1.0
PCB-1248	1.0
PCB-1260	1.0

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PCB-1016  
Toxaphene

1.0  
5.0

The permittee may develop an effluent specific method detection limit (MDL) in accordance with Appendix B to 40 CFR Part 136 (See LAC 33:IX.4901). For any pollutant for which the permittee determines an effluent specific MDL, the permittee shall send to this Office a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent specific MDL was correctly calculated. An effluent specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

$$MQL = 3.3 \times MDL$$

Upon written approval by this Office, the effluent specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

K. PERMIT REOPENER CLAUSE

The permittee shall achieve compliance with the effluent limitations and monitoring requirements specified for discharges in accordance with the following schedule: Effective date of the permit with the exception of the outfall as indicated below.

ACTIVITY	SCHEDULE
Compliance with the effluent limits and monitoring requirements established in Part I of the permit (pages 11, 13, 15)	Beginning the effective date of the permit and lasting until cessation of process wastewater discharges from the Ethylene Dichloride manufacturing operations
Compliance with the effluent limits and monitoring requirements established in Part I of the permit (pages 12, 14, 18)	Beginning the cessation of process wastewater discharges from the Ethylene Dichloride manufacturing operations and lasting until the expiration date
Compliance with the effluent limits and monitoring requirements established in Part I of the permit (page 40)	Beginning the effective date of the permit and lasting until shutdown of Vinyl II Plant (including cessation of discharges from the plant)
Compliance with the effluent limits and monitoring requirements established in Part I of the permit (page 42)	Beginning the shutdown of Vinyl II Plant (including cessation of discharges from the plant) and lasting until the expiration date

The permittee shall notify the Office of Environmental Services, the Office of Environmental Compliance-Permit Compliance Unit, and the Capital Regional Office in writing at least 30 days prior to startup of discharges under each phase.

L. FLOW MEASUREMENT "CONTINUOUS" SAMPLE TYPE - ALTERNATIVE PROCEDURE

In the event of a flow monitoring device failure with equipment used for backup purposes, the permittee shall use the daily average flow prior to the upset event to estimate flow. Continuous monitoring must be restored as soon as possible, and in no event more than 72 hours from the time of the flow monitoring device failure.

This exception to continuous flow monitoring can be used no more than once per month for each applicable outfall. During periods of interruption of instantaneous

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flow measurement, sample compositors shall collect samples at regular intervals of time.

In the event of a flow monitoring device failure, the permittee shall include the following information in the comments section on the DMR:

- (1) The date and time of the flow monitoring device failure.
- (2) The date and time that the operation of the flow monitoring device is restored.

M. PERMIT REOPENER CLAUSE

In accordance with LAC 33:IX.2903, this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit; or
3. Require reassessment due to change in 303(d) status of waterbody; or
4. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

N. STORMWATER DISCHARGES

1. This section applies to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. The purpose of the pollution prevention plan is to identify potential sources of pollution that would reasonably be expected to affect the quality of stormwater and identify the practices that will be used to prevent or reduce the pollutants in stormwater discharges.
2. Any runoff leaving the developed areas of the facility, other than the permitted outfall(s), exceeding 50 mg/L TOC, 15 mg/L Oil and Grease, or having a pH less than 6.0 or greater than 9.0 standard units shall be a violation of this permit. Any discharge in excess of these limitations, which is attributable to offsite contamination shall not be considered a violation of this permit. A visual inspection of the facility shall be conducted and a report made annually as described in Paragraph 4 below.

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3. For first time permit issuance, the permittee shall prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. For renewal permit issuance, the permittee shall review and update, if necessary, a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. The terms and conditions of the SWP3 shall be an enforceable Part of the permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference into the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasure Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. EPA document 832-R-92-006 (Storm Water Management for Industrial Activities) may be used as a guidance and may be obtained by writing to the Water Resource Center (RC-4100T), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington D.C. 20460 or by calling (202) 566-1729 or via the Wetlands Helpline (800) 832-7828.
4. The following conditions are applicable to all facilities and shall be included in the SWP3 for the facility.
  - a. The permittee shall conduct an annual inspection of the facility site to identify areas contributing to the storm water discharge from developed areas of the facility and evaluate whether measures to reduce pollutant loadings identified in the SWP3 are adequate and have been properly implemented in accordance with the terms of the permit or whether additional control measures are needed.
  - b. The permittee shall develop a site map which includes all areas where stormwater may contact potential pollutants or substances which can cause pollution. Any location where reportable quantities leaks or spills have previously occurred are to be documented in the SWP3. The SWP3 shall contain a description of the potential pollutant sources, including, the type and quantity of material present and what action has been taken to assure stormwater precipitation will not directly contact the substances and result in contaminated runoff.
  - c. Where experience indicates a reasonable potential for equipment failure (e.g. a tank overflow or leakage), natural condition of (e.g. precipitation), or other circumstances which result in significant amounts of pollutants reaching surface waters, the SWP3 should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.
  - d. The permittee shall maintain for a period of three years a record summarizing the results of the inspection and a certification that the facility is in compliance with the SWP3, and identifying any incidents of noncompliance. The summary report should contain, at a minimum, the date and time of inspection, name of inspector(s), conditions found, and changes to be made to the SWP3.
  - e. The summary report and the following certification shall be signed in accordance with LAC 33:IX.2503. The summary report is to be attached to the SWP3 and provided to the Department upon request.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel



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properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signatory requirements for the certification may be found in Part III, Section D.10 of this permit.

- f. The permittee shall make available to the Department, upon request, a copy of the SWP3 and any supporting documentation.
5. The following shall be included in the SWP3, if applicable.
- a. The permittee shall utilize all reasonable methods to minimize any adverse impact on the drainage system including but not limited to:
    - i. maintaining adequate roads and driveway surfaces;
    - ii. removing debris and accumulated solids from the drainage system; and
    - iii. cleaning up immediately any spill by sweeping, absorbent pads, or other appropriate methods.
  - b. All spilled product and other spilled wastes shall be immediately cleaned up and disposed of according to all applicable regulations, Spill Prevention and Control (SPC) plans or Spill Prevention Control and Countermeasures (SPCC) plans. Use of detergents, emulsifiers, or dispersants to clean up spilled product is prohibited except where necessary to comply with State or Federal safety regulations (i.e., requirement for non-slippery work surface) except where the cleanup practice does not result in a discharge and does not leave residues exposed to future storm events. In all such cases, initial cleanup shall be done by physical removal and chemical usage shall be minimized.
  - c. All equipment, parts, dumpsters, trash bins, petroleum products, chemical solvents, detergents, or other materials exposed to stormwater shall be maintained in a manner which prevents contamination of stormwater by pollutants.
  - d. All waste fuel, lubricants, coolants, solvents, or other fluids used in the repair or maintenance of vehicles or equipment shall be recycled or contained for proper disposal. Spills of these materials are to be cleaned up by dry means whenever possible.
  - e. If applicable, all storage tank installations (with a capacity greater than 660 gallons for an individual container, or 1,320 gallons for two or more containers in aggregate within a common storage area) shall be constructed so that a secondary means of containment is provided for the entire contents of the largest tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spills.
  - f. All diked areas surrounding storage tanks or stormwater collection basins shall be free of residual oil or other contaminants so as to prevent the accidental discharge of these materials in the event of flooding, dike failure, or improper draining of the diked area. All

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drains from diked areas shall be equipped with valves which shall be kept in the closed condition except during periods of supervised discharge.

- g. All check valves, tanks, drains, or other potential sources of pollutant releases shall be inspected and maintained on a regular basis to assure their proper operation and to prevent the discharge of pollutants.
- h. The permittee shall assure compliance with all applicable regulations promulgated under the Louisiana Solid Waste and Resource Recovery Law and the Hazardous Waste Management Law (L.R.S. 30:2151, etc.). Management practices required under above regulations shall be referenced in the SWP3.
- i. The permittee shall amend the SWP3 whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.
- j. If the SWP3 proves to be ineffective in achieving the general objectives of preventing the release of significant amounts of pollutants to water of the state, then the specific objectives and requirements of the SWP3 shall be subject to modification to incorporate revised SWP3 requirements.

6. Facility Specific SWP3 Conditions:

None

O. DISCHARGE MONITORING REPORTS

Monitoring results must be reported on a Discharge Monitoring Report (DMR) form (EPA No. 3320-1 or an approved substitute). All monitoring reports must be retained for a period of at least three (3) years from the date of the sample measurement. The permittee shall make available to this Department, upon request, copies of all monitoring data required by this permit.

If there is no discharge during the reporting period, place an "X" in the NO DISCHARGE box located in the upper right corner of the Discharge Monitoring Report for that outfall.

Monitoring results for each reporting period shall be summarized on a Discharge Monitoring Report (DMR) Form (one DMR form per monitoring period per outfall) and submitted to the Office of Environmental Compliance either hand delivered, postmarked, or electronically submitted in accordance with LAC 33:I.2101.A and B no later than the 15th day of the month following each reporting period:

1. For parameter(s) with monitoring frequencies of 1/month or more frequent (i.e. continuous, 1/batch, 1/discharge event, 1/day, 3/week, 2/week, 1/week, 2/month, etc.), DMRs shall be submitted in accordance with the following schedule:

Submit DMR postmarked by the 15th day of the following month.

2. For parameter(s) that require a monitoring frequency of 1/2 months, DMRs shall be submitted in accordance with the following schedule:

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<u>Monitoring Period</u>	<u>DMR Postmark Date</u>
January 1 - February 28(29)	March 15th
March 1 - April 30	May 15th
May 1 - June 30	July 15th
July 1 - August 31	September 15th
September 1 - October 31	November 15th
November 1 - December 31	January 15 <sup>th</sup>

3. For parameter(s) that require a monitoring frequency of quarterly, DMRs shall be submitted in accordance with the following schedule:

<u>Monitoring Period</u>	<u>DMR Postmark Date</u>
January, February, March	April 15th
April, May, June	July 15th
July, August, September	October 15th
October, November, December	January 15th

4. For parameter(s) that require a semiannual monitoring frequency, DMRs shall be submitted in accordance with the following schedule:

<u>Monitoring Period</u>	<u>DMR Postmark Date</u>
January - June	July 15th
July - December	January 15th

5. For parameter(s) that require an annual monitoring frequency, DMRs shall be submitted in accordance with the following schedule:

<u>Monitoring Period</u>	<u>DMR Postmark Date</u>
January-December	January 15th

Duplicate copies of DMRs (one set of originals and one set of copies) signed and certified as required by LAC 33:IX.2503, and all other reports (one set of originals) required by this permit shall be submitted to the Permit Compliance Unit at the following address:

Department of Environmental Quality  
Office of Environmental Compliance  
Permit Compliance Unit  
Post Office Box 4312  
Baton Rouge, Louisiana 70821-4312

P. 48 HR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

*It is unlawful and a violation of this permit for a permittee or the designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by the Louisiana Department of Environmental Quality.*

1. SCOPE AND METHODOLOGY

- a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

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APPLICABLE TO OUTFALL(S):	001
REPORTED ON DMR AS FINAL OUTFALL:	TX1
CRITICAL DILUTION:	19%
EFFLUENT DILUTION SERIES:	8%, 11%, 14%, 19%, and 26%
SAMPLE TYPE:	24-Hour Composite
TEST SPECIES/METHODS:	40 CFR Part 136

Daphnia pulex acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with ten (10) organisms per replicate must be used in the control and in each effluent dilution of this test.

Pimephales promelas (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with ten (10) organisms per replicate must be used in the control and in each effluent dilution of this test.

- b. The NOEC (No Observed Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur.
- c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.
- d. Test failure is defined as a demonstration of statistically significant lethal effects to a test species at or below the effluent critical dilution.

## 2. PERSISTENT LETHALITY

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal effects at or below the critical dilution. Significant lethal effects are herein defined as a statistically significant difference at the 95% confidence level between the survival of the appropriate test organism in a specified effluent dilution and the control (0% effluent).

If any valid test demonstrates significant lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the term of the permit.

- a. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates statistically significant lethal toxic effects at the critical dilution or lower effluent dilutions. The additional tests shall be conducted monthly during the next three consecutive months in which a discharge occurs to determine if toxicity is persistent or occurs on a periodic basis. The purpose of this testing is to determine whether toxicity is present at a level and frequency that will provide toxic sample results to use in performing a Toxicity Reduction Evaluation (TRE). If no additional

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test failures occur during the retest monitoring period, the testing frequency will be once per quarter for the term of the permit or until another test failure occurs. The permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.

- b. If any of the valid additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in item 6 of this section. The permittee shall notify the Department of Environmental Quality, Office of Environmental Compliance - Permit Compliance Unit in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.
- c. The provisions of item 2.a are suspended upon submittal of the TRE Action Plan.

### 3. REQUIRED TOXICITY TESTING CONDITIONS

#### a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.
- ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for the Daphnia pulex survival test and Fathead minnow survival test.
- iii. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal effects are exhibited for the Daphnia pulex survival test and Fathead minnow survival test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

#### b. Statistical Interpretation

For the Daphnia pulex survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA-821-R-02-012, or the most recent update thereof.

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If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 90% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

c. Dilution Water

- i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for:
  - A. toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
  - B. toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.
- ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
  - A. a synthetic dilution water control which fulfills the test acceptance requirements of item 3.a was run concurrently with the receiving water control;
  - B. the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);
  - C. the permittee includes all test results indicating receiving water toxicity with the full report and information required by item 4 below; and
  - D. the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

- i. The permittee shall collect two flow-weighted 24-hour composite samples from the outfall(s) listed at item 1.a above. A 24-hour composite sample consists of a minimum of 4 effluent portions collected at equal time intervals representative of a 24-hour operating day and combined proportional to flow or a sample continuously collected proportional to flow over a 24-hour operating day.

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- ii. The permittee shall collect a second 24-hour composite sample for use during the 24-hour renewal of each dilution concentration for both tests. The permittee must collect the 24-hour composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first 24-hour composite sample. Samples shall be chilled to 0-6 degrees Centigrade during collection, shipping and/or storage.
- iii. The permittee must collect the 24-hour composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.
- iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in item 4 of this section.

4. REPORTING

- a. A valid test must be completed and test results must be submitted for each species during each Monitoring Period. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA-821-R-02-012, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of Part III.C of this permit. For any test which fails, is considered invalid, or which is terminated early for any reason, the full report must be submitted for agency review. The permittee shall submit the first full report to:

Department of Environmental Quality  
Office of Environmental Compliance  
P. O. Box 4312  
Baton Rouge, Louisiana 70821-4312  
Attn: Permit Compliance Unit

- b. The permittee shall submit the results of each valid toxicity test on the DMR for that Monitoring Period in accordance with Part III D.4 and the DMR Monitoring Period schedule contained in Part II of this permit. Submit retest information clearly marked as such on the DMR for the Monitoring Period in which the retest occurred. Only results of valid tests are to be reported on the DMR. The permittee shall submit the Table 1 and 2 Summary Sheets with each valid test.

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- i. Pimephales promelas (Fathead minnow)
  - A. If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM6C.
  - B. Report the NOEC value for survival, Parameter No. TOM6C.
  - C. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM6C.
- ii. Daphnia pulex
  - A. If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.
  - B. Report the NOEC value for survival, Parameter No. TOM3D.
  - C. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.
- iii. The permittee shall report the following results for all VALID toxicity retests on the DMR for that Monitoring Period.
  - A. Retest #1 (STORET 22415): If the first monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".
  - B. Retest #2 (STORET 22416): If the second monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".
  - C. Retest #3 (STORET 51443): If the third monthly retest following failure of a routine test for either test species results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

If, for any reason, a retest cannot be performed during the Monitoring Period in which the triggering routine test failure is experienced, the permittee shall report it on the following Monitoring Period's DMR, and the comments section of the DMRs shall be annotated to that effect. If retesting is not required during a given Monitoring Period, the permittee shall leave these DMR fields blank.

The permittee shall submit the toxicity testing information contained in Tables 1 and 2 of this permit with the DMR subsequent to each and every toxicity test Monitoring Period. The DMR and the summary table should be sent to the address indicated in 4.a.

#### 5. MONITORING FREQUENCY REDUCTION

- a. Upon successfully passing the first four consecutive quarters of WET testing after permit issuance/reissuance and in the absence of



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subsequent lethal toxicity for one or both test species at or below the critical dilution, the permittee may apply for a testing frequency reduction. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the *Daphnia pulex*).

- b. CERTIFICATION - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a above. In addition, the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of the information, the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's Permit Compliance Unit to update the permit reporting requirements.
- c. This monitoring frequency reduction applies only until the expiration date of this permit, at which time the Monitoring Frequency/Monitoring Period for both test species reverts to once per quarter until the permit is re-issued.
- d. SURVIVAL FAILURES - If any test fails the survival endpoint at any time during the term of this permit, three monthly retests are required and the monitoring frequency for the affected species shall be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.

6. TOXICITY REDUCTION EVALUATION (TRE)

- a. Within ninety (90) days of confirming lethality in any retest, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent requirements and/or chemical-specific limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The TRE Action Plan shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:
  - i. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA-

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600/6-91/003) and "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA-600/6-91/005), or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081), as appropriate;

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at 1-800-553-6847, or by writing:

U.S. Department of Commerce  
National Technical Information Service  
5285 Port Royal Road  
Springfield, Virginia 22161

- ii. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 24 hours of test initiation, each 24-hour composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual 24-hour composite samples, for the chemical specific analysis;

- iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and
  - iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).
- b. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.
  - c. The permittee shall submit a quarterly TRE Activities Report, with the Discharge Monitoring Report in the months of January, April, July, and October, containing information on toxicity reduction evaluation activities including:
    - i. any data and/or substantiating documentation which identify the pollutant(s) and/or source(s) of effluent toxicity;

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- ii. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
- iii. any data which identify effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to achieve compliance with permit biomonitoring requirements and/or chemical-specific limits.

The TRE Activities Report shall be submitted to the following addresses:

Department of Environmental Quality  
Office of Environmental Compliance  
P.O. Box 4312  
Baton Rouge, Louisiana 70821-4312  
Attn: Permit Compliance Unit

U.S. Environmental Protection Agency, Region 6  
Water Enforcement Branch  
1445 Ross Avenue  
Dallas, Texas 75202

- d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in the permittee achieving compliance with permit biomonitoring requirements and/or chemical-specific limits. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the above addresses.

- e. Quarterly testing during the TRE is a minimum monitoring requirement. LDEQ recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. At the end of the TRE, LDEQ will consider all information submitted and establish appropriate controls to prevent future toxic discharges, including WET and/or chemical-specific limits per state regulations at LAC 33:IX.2707.D.1.e.

Q. 316(b) PHASE II RULE REQUIREMENTS

- 1. On July 6, 2004, EPA promulgated 'Phase II' regulations in accordance with section 316(b) of the Clean Water Act (CWA). On January 25, 2007, the Second U.S. Circuit Court of Appeals remanded several provisions of the Phase II rule. On March 20, 2007, EPA issued a memo saying, "the rule should be considered suspended". On July 9, 2007, EPA published a Federal Register notice suspending all parts of the Phase II regulations except 40 CFR 125.90(b) [LAC 33:IX4731.B].

LAC 33:4731.B provides for regulating cooling water intake structures for existing facilities on a case-by-case basis using best professional judgment.

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When EPA re-promulgates the Phase II regulations, the provisions and timelines in the rule will supersede any requirements contained in this permit.

In order to reduce the environmental impact caused by the cooling water intake structure (CWIS), the permittee shall comply with effective regulations promulgated in accordance with section 316(b) of the CWA for cooling water intake structures. The permittee must evaluate the environmental impacts of their CWIS by characterizing the fish/shellfish in the vicinity of the CWIS and assessing impingement mortality and entrainment. Based on the information submitted to DEQ, the permit may be reopened to incorporate limitations and/or requirements for the CWIS.

2. Within one year of the effective date of this permit, the permittee must submit a plan to develop the information in item 3. of this section. The plan must be submitted to EPA and LDEQ for review and approval and must include an evaluation of existing data and/or collection of additional data to support the determination of 'baseline conditions' and current operational conditions.
3. The permittee must submit the following information to DEQ within four (4) years from the effective date of this permit.
  - a. Source water physical data. These include:
    - (1) A narrative description and scaled drawings showing the physical configuration of the source water body used by your facility, including areal dimensions, depths, salinity, temperature regimes, and other documentation that supports your assessment of the water body;
    - (2) Identification and characterization of the source water body's hydrological and geomorphological features, as well as the methods used to conduct any physical studies to determine your intake's area of influence within the water body and the results of such studies; and
    - (3) Location maps.
  - b. Cooling water intake structure data. These include:
    - (1) A narrative description of the configuration of your CWIS and where it is located in the water body and in the water column;
    - (2) Latitude and longitude in degrees, minutes, and seconds of your CWIS;
    - (3) A narrative description of the operation of your CWIS, including design intake flows, daily hours of operation, number of days of the year in operation and seasonal changes, if applicable;
    - (4) A flow distribution and water balance diagram that includes all sources of water to the facility, recirculating flows, and discharges; and

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- (5) Engineering drawings of the CWIS.
- c. Cooling water system data. The permittee must provide following information for their CWIS.
  - (1) A narrative description of the operation of the cooling water system, its relationship to CWIS, the proportion of the design intake flow that is used in the system, the number of days of the year the cooling water system is in operation and seasonal changes in the operation of the system, if applicable; and
  - (2) Design and engineering calculations prepared by a qualified professional and supporting data to support the description required by 3.c.(1) of this section.
- d. Source water biological characterization data. This information is required to characterize the biological community in the vicinity of the CWIS and to characterize the environmental impacts of the CWIS. This supporting information must include existing data (if they are available). However, you may supplement the data using newly conducted field studies if you choose to do so. The information you submit must include:
  - (1) A list of species for all life stages of fish and shellfish in the vicinity of your CWIS and their relative abundance (population) in the vicinity of the CWIS;
  - (2) Identification and evaluation of periods of reproduction, larval recruitment, and peak abundance for species in item 3.d.(1) of this section;
  - (3) Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of species in item 3.d.(1) of this section; and
  - (4) Identification of all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at your CWIS.
- e. Impingement mortality/entrainment characterization assessment. The permittee must provide information to support the determination of the baseline condition and the current impingement mortality and entrainment of all life stages of fish and shellfish referred to in item 3.d. of this section. The information may include historical data that are representative of the current operations of your facility and biological conditions at your site.
- f. If historical data is used, the permittee must provide documentation that the historical data is representative of current operational conditions.
- g. Assessment of the cooling water system. This includes:

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- (1) A discussion or description of how structural or operational actions that are currently in place reduce adverse environmental impacts caused by the cooling water intake.
  - (2) A discussion of additional structural or operational actions, if any, that have been reviewed or evaluated as possible measures to further reduce environmental impacts caused by the cooling water intake.
4. A sampling plan is required if actual field studies in the source water body are used to collect biological characteristics data. The sampling plan must document all methods and quality assurance procedures for sampling, and data analysis. The sampling and data analysis methods you propose must be appropriate for a quantitative survey and based on consideration of methods used in other studies performed in the source water body. The sampling plan must include a description of the study area (including the area of influence of the cooling water intake structure and at least 100 meters beyond); taxonomic identification of the sampled or evaluated biological assemblages (including all life stages of fish and shellfish); and sampling and data analysis methods.
5. Source water biological characterization data are not required if the permittee can demonstrate that the facility uses only a closed-cycle recirculating system for withdrawal of all cooling water.
6. The following special definitions apply to this subpart:
  - a. **Baseline conditions** means the impingement mortality and entrainment that would occur at your site assuming that (1) the cooling water system has been designed as a once-through system, (2) the opening of the CWIS is located at, and the face of the standard 3/8-inch mesh traveling screen is oriented parallel to, the shoreline near the surface of the source water body.
  - b. **Closed-cycle recirculating system** means a system designed, using minimized makeup and blow down flows, to withdraw water from a natural or other water source to support contact and/or non-contact cooling uses within a facility. The water is usually sent to a cooling canal or channel, lake, pond, or tower to allow waste heat to be dissipated to the atmosphere and then is returned to the system. (Some facilities divert the waste heat to other process operations.) New source water (make-up water) is added to the system to replenish losses that have occurred due to blow down, drift, and evaporation.
  - c. **Cooling water** means water used for contact or non-contact cooling, including water used for equipment cooling, evaporative cooling tower makeup, and dilution of effluent heat content. The intended use of the cooling water is to absorb waste heat rejected from the process or processes used, or from auxiliary operations on the facility's premises.
  - d. **Cooling water intake structure** means the total physical structure and any associated constructed waterways used to withdraw cooling water from waters of the U.S. The cooling water intake structure extends from the point at which water

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- is withdrawn from the surface water source up to, and including, the intake pumps.
- e. **Intake flow** means the value of the total volume of water withdrawn from a source water body over a specific time period.
  - f. **Intake velocity** means the value of the average speed at which intake water passes through the open area of the intake screen (or other device) against which organisms might be impinged or through which they might be entrained.
  - g. **Entrainment** means the incorporation of all life stages of fish and shellfish with intake water flow entering and passing through a cooling water intake structure and into a cooling water system.
  - h. **Hydraulic zone of influence** means that portion of the source water body hydraulically affected by the cooling water intake structure withdrawal of water.
  - i. **Impingement** means the entrapment of all life stages of fish and shellfish on the outer part of an intake structure or against a screening device during periods of intake water withdrawal.
  - j. **Maximize** means to increase to the greatest amount, extent, or degree reasonably possible.
  - k. **Minimize** means to reduce to the smallest amount, extent, or degree reasonably possible.
  - l. **Source water** means the water body (waters of the state) from which the cooling water is withdrawn.

R. DIOXIN INFLUENT/EFFLUENT MONITORING REQUIREMENT

The permittee shall analyze daily composite samples of the facility's influent, receiving water from the Mississippi River at mile marker 210, and its effluent at final Outfall 001 once per six months for concentrations of 2,3,7,8-isomers of chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans. Results shall be reported as designated in 40 CFR 136, App, Method 1613 and submitted to Water Quality Divisions of LDEQ with the July and January Discharge Monitoring Reports.

**TABLE 1**  
**SUMMARY SHEET**  
**Daphnia pulex ACUTE SURVIVAL TEST RESULTS**

PERMITTEE: The Dow Chemical Company  
 FACILITY SITE: Louisiana Operations  
 LPDES PERMIT NUMBER: LA0003301, AI 1409  
 OUTFALL IDENTIFICATION: 001  
 OUTFALL SAMPLE IS FROM                      SINGLE                      MULTIPLE DISCHARGE  
 BIOMONITORING LABORATORY:                       
 DILUTION WATER USED:                      RECEIVING WATER                      LAB WATER  
 CRITICAL DILUTION 19 % DATE TEST INITIATED                     

**1. LOW-FLOW LETHALITY:**

Is the mean survival at 48 hours significantly less ( $p=0.05$ ) than the control survival for the low flow or critical dilution?                      Yes                      No

**DILUTION SERIES RESULTS - Daphnia**

TIME OF READING	REP	0%	8%	11%	14%	19%	26%
24 HOUR							
48 HOUR							
MEAN							

2. Are the test results to be considered valid?                      Yes                      No  
 If X no (test invalid), what reasons for invalidity?
3. Is this a retest of a previous invalid test?                      Yes                      No  
 Is this a retest of a previous test failure?                      Yes                      No
4. Enter percent effluent corresponding to each NOEC (No Observed Effect Concentration) for Daphnia pulex:

NOEC                      % EFFLUENT

LC<sub>50</sub>48                      % EFFLUENT





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PART III  
STANDARD CONDITIONS FOR LPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Introduction

In accordance with the provisions of LAC 33:IX.2701, et seq., this permit incorporates either expressly or by reference ALL conditions and requirements applicable to Louisiana Pollutant Discharge Elimination System Permits (LPDES) set forth in the Louisiana Environmental Quality Act (LEQA), as amended, as well as ALL applicable regulations.

2. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Louisiana Environmental Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. Penalties for Violation of Permit Conditions

a. LA. R. S. 30:2025 provides for civil penalties for violations of these regulations and the Louisiana Environmental Quality Act. LA. R. S. 30:2076.2 provides for criminal penalties for violation of any provisions of the LPDES or any order or any permit condition or limitation issued under or implementing any provisions of the LPDES program. (See Section E. Penalties for Violation of Permit Conditions for additional details).

b. Any person may be assessed an administrative penalty by the State Administrative Authority under LA. R. S. 30:2025 for violating a permit condition or limitation implementing any of the requirements of the LPDES program in a permit issued under the regulations or the Louisiana Environmental Quality Act.

4. Toxic Pollutants

a. Other effluent limitations and standards under Sections 301, 302, 303, 307, 318, and 405 of the Clean Water Act. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, the state administrative authority shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

5. Duty to Reapply

a. Individual Permits. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The new application shall be submitted at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the state administrative authority. (The state administrative authority shall not grant permission for applications to be submitted later than the expiration date of the existing permit.) Continuation of expiring permits shall be governed by regulations promulgated at LAC 33:IX.2321 and any subsequent amendments.

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- b. General Permits. General permits expire five years after the effective date. The 180-day reapplication period as defined above is not applicable to general permit authorizations. Reissued general permits may provide automatic coverage for permittees authorized under the previous version of the permit, and no new application is required. Requirements for obtaining authorization under the reissued general permit will be outlined in Part I of the new permit. Permittees authorized to discharge under an expiring general permit should follow the requirements for obtaining coverage under the new general permit to maintain discharge authorization.

6. Permit Action

This permit may be modified, revoked and reissued, or terminated for cause in accordance with LAC 33:IX.2903, 2905, 2907, 3105 and 6509. The causes may include, but are not limited to, the following:

- a. Noncompliance by the permittee with any condition of the permit;
- b. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;
- c. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;
- d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge; or
- e. Failure to pay applicable fees under the provisions of LAC 33: IX. Chapter 13;
- f. Change of ownership or operational control;

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

8. Duty to Provide Information

The permittee shall furnish to the state administrative authority, within a reasonable time, any information which the state administrative authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the state administrative authority, upon request, copies of records required to be kept by this permit.

9. Criminal and Civil Liability

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to La. R.S. 30:2025.

10. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

11. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

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**12. Severability**

If any provision of these rules and regulations, or the application thereof, is held to be invalid, the remaining provisions of these rules and regulations shall not be affected, so long as they can be given effect without the invalid provision. To this end, the provisions of these rules and regulations are declared to be severable.

**13. Dilution**

A permittee shall not achieve any effluent concentration by dilution unless specifically authorized in the permit. A permittee shall not increase the use of process water or cooling water or otherwise attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve permit limitations or water quality.

**14. Facilities Requiring Approval from Other State Agencies**

In accordance with La R.S.40.4(A)(6) the plans and specifications of all sanitary sewerage treatment systems, both public and private, must be approved by the Department of Health and Hospitals state health officer or his designee. It is unlawful for any person, firm, or corporation, both municipal and private to operate a sanitary sewage treatment facility without proper authorization from the state health officer.

In accordance with La R.S.40.1149, it is unlawful for any person, firm or corporation, both municipal and private, operating a sewerage system to operate that system unless the competency of the operator is duly certified by the Department of Health and Hospitals state health officer. Furthermore, it is unlawful for any person to perform the duties of an operator without being duly certified.

In accordance with La R.S.48.385, it is unlawful for any industrial wastes, sewage, septic tanks effluent, or any noxious or harmful matter, solid, liquid or gaseous to be discharged into the side or cross ditches or placed upon the rights-of-ways of state highways without the prior written consent of the Department of Transportation and Development chief engineer or his duly authorized representative and of the secretary of the Department of Health and Hospitals.

**SECTION B. PROPER OPERATION AND MAINTENANCE****1. Need to Halt or Reduce not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**2. Duty to Mitigate**

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

**3. Proper Operation and Maintenance**

- a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and other functions necessary to ensure compliance with the conditions of this permit.

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4. Bypass of Treatment Facilities

- a. Bypass. The intentional diversion of waste streams from any portion of a treatment facility.
- b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Section B.4.c. and 4.d of these standard conditions.
- c. Notice
  - (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Office of Environmental Services, Water Permits Division, if possible at least ten days before the date of the bypass.
  - (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in LAC 33:IX.2701.L.6, (24-hour notice) and Section D.6.e. of these standard conditions.
- d. Prohibition of bypass
  - (1) Bypass is prohibited, and the state administrative authority may take enforcement action against a permittee for bypass, unless:
    - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
    - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,
    - (c) The permittee submitted notices as required by Section B.4.c of these standard conditions.
  - (2) The state administrative authority may approve an anticipated bypass after considering its adverse effects, if the state administrative authority determines that it will meet the three conditions listed in Section B.4.d(1) of these standard conditions.

5. Upset Conditions

- a. Upset. An exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Section B.5.c. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
  - (2) The permitted facility was at the time being properly operated; and
  - (3) The permittee submitted notice of the upset as required by LAC 33:IX.2701.L.6.b.ii. and Section D.6.e.(2) of these standard conditions; and

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- (4) The permittee complied with any remedial measures required by Section B.2 of these standard conditions.
- d. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
6. Removed Substances  
Solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state and in accordance with environmental regulations.
7. Percent Removal  
For publicly owned treatment works, the 30-day average percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent in accordance with LAC 33:IX.5905.A.3. and B.3.

### SECTION C. MONITORING AND RECORDS

#### 1. Inspection and Entry

The permittee shall allow the state administrative authority or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by the law to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.

Enter upon the permittee's premises where a discharge source is or might be located or in which monitoring equipment or records required by a permit are kept for inspection or sampling purposes. Most inspections will be unannounced and should be allowed to begin immediately, but in no case shall begin more than thirty (30) minutes after the time the inspector presents his/her credentials and announces the purpose(s) of the inspection. Delay in excess of thirty (30) minutes shall constitute a violation of this permit. However, additional time can be granted if the inspector or the Administrative Authority determines that the circumstances warrant such action; and

- b. Have access to and copy, at reasonable times, any records that the department or its authorized representative determines are necessary for the enforcement of this permit. For records maintained in either a central or private office that is open only during normal office hours and is closed at the time of inspection, the records shall be made available as soon as the office is open, but in no case later than the close of business the next working day;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Louisiana Environmental Quality Act, any substances or parameters at any location.
- e. Sample Collection
- (1) When the inspector announces that samples will be collected, the permittee will be given an additional thirty (30) minutes to prepare containers in order to collect duplicates. If the permittee cannot obtain and prepare sample containers within this time, he is considered to have waived his right to collect duplicate samples and the sampling will proceed immediately. Further delay on the part of the permittee in allowing initiation of the sampling will constitute a violation of this permit.
- (2) At the discretion of the administrative authority, sample collection shall proceed immediately (without the additional 30 minutes described in Section C.1.a. above) and the inspector shall supply the permittee with a duplicate sample.

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- f. It shall be the responsibility of the permittee to ensure that a facility representative familiar with provisions of its wastewater discharge permit, including any other conditions or limitations, be available either by phone or in person at the facility during all hours of operation. The absence of such personnel on-site who are familiar with the permit shall not be grounds for delaying the initiation of an inspection except in situations as described in Section C.1.b. of these standard conditions. The permittee shall be responsible for providing witnesses/escorts during inspections. Inspectors shall abide by all company safety rules and shall be equipped with standard safety equipment (hard hat, safety shoes, safety glasses) normally required by industrial facilities.
- g. Upon written request copies of field notes, drawings, etc., taken by department personnel during an inspection shall be provided to the permittee after the final inspection report has been completed.

## 2. Representative Sampling

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All samples shall be taken at the outfall location(s) indicated in the permit. The state administrative authority shall be notified prior to any changes in the outfall location(s). Any changes in the outfall location(s) may be subject to modification, revocation and reissuance in accordance with LAC 33:IX.2903.

## 3. Retention of Records

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the state administrative authority at any time.

## 4. Record Contents

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The time(s) analyses were begun;
- e. The individual(s) who performed the analyses;
- f. The analytical techniques or methods used;
- g. The results of such analyses; and
- h. The results of all quality control procedures.

## 5. Monitoring Procedures

- a. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in this permit.
- b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.
- c. The permittee or designated laboratory shall have an adequate analytical quality assurance/quality control program to produce defensible data of known precision and accuracy. All quality control measures shall be assessed and evaluated on an on-going basis and quality control acceptance criteria shall be used to determine the validity of the data. All method specific quality control as prescribed in the method shall be followed. If quality control requirements are not included in the method, the permittee or designated laboratory shall follow the quality control requirements as prescribed in the Approved Edition (40 CFR Part 136) Standard Methods for the Examination of Water and Wastes, Sections 1020A and 1020B. General sampling protocol shall follow guidelines established in the

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"Handbook for Sampling and Sample Preservation of Water and Wastewater, 1982" U.S. Environmental Protection Agency. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-83-124503.

#### 6. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

- a. "A Guide to Methods and Standards for the Measurement of Water Flow, 1975," U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number COM-75-10683.
- b. "Flow Measurement in Open Channels and Closed Conduits, Volumes 1 and 2," U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Information Service (NTIS), Springfield, VA, 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-273 535.
- c. "NPDES Compliance Flow Measurement Manual," U.S. Environmental Protection Agency, Office of Water Enforcement. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-82-131178.

#### 7. Prohibition for Tampering: Penalties

- a. LA R.S. 30:2025 provides for punishment of any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit.
- b. LA R.S. 30:2076.2 provides for penalties for any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non compliance.

#### 8. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 (See LAC 33:IX.4901) or, in the case of sludge use and disposal, approved under 40 CFR Part 136 (See LAC 33:IX.4901) unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the state administrative authority.

#### 9. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the state administrative authority in the permit.

#### 10. Laboratory Accreditation

- a. LAC 33:I.Subpart 3, Chapters 45-59 provide requirements for an accreditation program specifically applicable to commercial laboratories, wherever located, that provide chemical analyses, analytical results, or other test data to the department, by contract or by agreement, and the data is:
  - (1) Submitted on behalf of any facility, as defined in R.S.30:2004;
  - (2) Required as part of any permit application;
  - (3) Required by order of the department;
  - (4) Required to be included on any monitoring reports submitted to the department;
  - (5) Required to be submitted by contractor
  - (6) Otherwise required by department regulations.



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- b. The department laboratory accreditation program, Louisiana Environmental Laboratory Accreditation Program (LELAP) is designed to ensure the accuracy, precision, and reliability of the data generated, as well as the use of department-approved methodologies in generation of that data. Laboratory data generated by commercial environmental laboratories that are not (LELAP) accredited will not be accepted by the department. Retesting of analysis will be required by an accredited commercial laboratory.

Where retesting of effluent is not possible (i.e. data reported on DMRs for prior month's sampling), the data generated will be considered invalid and in violation of the LPDES permit.

- c. Regulations on the Louisiana Environmental Laboratory Accreditation Program and a list of labs that have applied for accreditation are available on the department website located under DIVISIONS → LABORATORY SERVICES at the following link:

<http://www.deq.louisiana.gov>

Questions concerning the program may be directed to (225) 219-9800.

#### SECTION D. REPORTING REQUIREMENTS

##### 1. Facility Changes

The permittee shall give notice to the state administrative authority as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under LAC 33:IX.2703.A.1.
- c. For Municipal Permits. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Section 301, or 306 of the CWA if it were directly discharging those pollutants; and any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

##### 2. Anticipated Noncompliance

The permittee shall give advance notice to the state administrative authority of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

##### 3. Transfers

This permit is not transferable to any person except after notice to the state administrative authority. The state administrative authority may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act or the Louisiana Environmental Quality Act. (See LAC 33:IX.2901; in some cases, modification or revocation and reissuance is mandatory.)

A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under LAC 33:IX.2903. A.2.b), or a minor modification made (under LAC 33:IX.2905) to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act and the Louisiana Environmental Quality Act.

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#### 4. Monitoring Reports

Monitoring results shall be reported at the intervals and in the form specified in Part I or Part II of this permit.

The permittee shall submit properly completed Discharge Monitoring Reports (DMRs) on the form specified in the permit. Preprinted DMRs are provided to majors/92-500's and other designated facilities. Please contact the Permit Compliance Unit concerning preprints. Self-generated DMRs must be pre-approved by the Permit Compliance Unit prior to submittal. Self-generated DMRs are approved on an individual basis. Requests for approval of self-generated DMRs should be submitted to:

Supervisor, Permit Compliance Unit  
Office of Environmental Compliance  
Post Office Box 4312  
Baton Rouge, LA 70821-4312

Copies of blank DMR templates, plus instructions for completing them, and EPA's LPDES Reporting Handbook are available at the department website located at:

<http://www.deq.louisiana.gov/portal/Default.aspx?tabid=2276>

#### 5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

#### 6. Requirements for Notification

##### a. Emergency Notification

As required by LAC 33:I.3915, in the event of an unauthorized discharge that does cause an emergency condition, the discharger shall notify the hotline (DPS 24-hour Louisiana Emergency Hazardous Materials Hotline) by telephone at (225) 925-6595 (collect calls accepted 24 hours a day) immediately (a reasonable period of time after taking prompt measures to determine the nature, quantity, and potential off-site impact of a release, considering the exigency of the circumstances), but in no case later than one hour after learning of the discharge. (An emergency condition is any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to property.) Notification required by this section will be made regardless of the amount of discharge. Prompt Notification Procedures are listed in Section D.6.c. of these standard conditions.

A written report shall be provided within seven calendar days after the notification. The report shall contain the information listed in Section D.6.d. of these standard conditions and any additional information in LAC 33:I.3925.B.

##### b. Prompt Notification

As required by LAC 33:I.3917, in the event of an unauthorized discharge that exceeds a reportable quantity specified in LAC 33:I.Subchapter E, but does not cause an emergency condition, the discharger shall promptly notify the department within 24 hours after learning of the discharge. Notification should be made to the Office of Environmental Compliance, Surveillance Division Single Point of Contact (SPOC) in accordance with LAC 33:I.3923.

In accordance with LAC 33:I.3923, prompt notification shall be provided within a time frame not to exceed 24 hours and shall be given to the Office of Environmental Compliance, Surveillance Division Single Point of Contact (SPOC) as follows:

- (1) by the Online Incident Reporting screens found at <http://www3.deq.louisiana.gov/surveillance/irf/forms/> ;or

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- (2) by e-mail utilizing the Incident Report Form and instructions found at <http://www.deq.louisiana.gov/portal/Default.aspx?tabid=279>; or
  - (3) by telephone at (225) 219-3640 during office hours, or (225) 342-1234 after hours and on weekends and holidays.
- c. Content of Prompt Notifications. The following guidelines will be utilized as appropriate, based on the conditions and circumstances surrounding any unauthorized discharge, to provide relevant information regarding the nature of the discharge:
  - (1) the name of the person making the notification and the telephone number where any return calls from response agencies can be placed;
  - (2) the name and location of the facility or site where the unauthorized discharge is imminent or has occurred, using common landmarks. In the event of an incident involving transport, include the name and address of the transporter and generator;
  - (3) the date and time the incident began and ended, or the estimated time of continuation if the discharge is continuing;
  - (4) the extent of any injuries and identification of any known personnel hazards that response agencies may face;
  - (5) the common or scientific chemical name, the U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all discharged pollutants;
  - (6) a brief description of the incident sufficient to allow response agencies to formulate their level and extent of response activity.
- d. Written Notification Procedures. Written reports for any unauthorized discharge that requires notification under Section D.6.a. or 6.b., or shall be submitted by the discharger to the Office of Environmental Compliance, Surveillance Division SPOC in accordance with LAC 33:IX.3925 within seven calendar days after the notification required by D.6.a. or 6.b., unless otherwise provided for in a valid permit or other department regulation. Written notification reports shall include, but not be limited to, the following information:
  - (1) the name, address, telephone number, Agency Interest (AI) number (number assigned by the department) if applicable, and any other applicable identification numbers of the person, company, or other party who is filing the written report, and specific identification that the report is the written follow-up report required by this section;
  - (2) the time and date of prompt notification, the state official contacted when reporting, the name of person making that notification, and identification of the site or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred;
  - (3) date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue;
  - (4) details of the circumstances (unauthorized discharge description and root cause) and events leading to any unauthorized discharge, including incidents of loss of sources of radiation, and if the release point is subject to a permit:
    - (a) the current permitted limit for the pollutant(s) released; and
    - (b) the permitted release point/outfall ID.
  - (5) the common or scientific chemical name of each specific pollutant that was released as the result of an unauthorized discharge, including the CAS number and U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all released pollutants (total amount of each compound expressed in pounds, including calculations);

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- (6) a statement of the actual or probable fate or disposition of the pollutant or source of radiation and what off-site impact resulted;
- (7) remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation.
- (8) Written notification reports shall be submitted to the Office of Environmental Compliance, Surveillance Division SPOC by mail or fax. The transmittal envelope and report or fax cover page and report should be clearly marked "UNAUTHORIZED DISCHARGE NOTIFICATION REPORT."

Please see LAC 33:1.3925.B for additional written notification procedures.

- e. Twenty-four Hour Reporting. The permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and; steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:

- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit (see LAC 33:IX.2701.M.3.b.);
- (2) Any upset which exceeds any effluent limitation in the permit;
- (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the state administrative authority in Part II of the permit to be reported within 24 hours (LAC 33:IX.2707.G.).

#### 7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Section D.4., 5., and 6., at the time monitoring reports are submitted. The reports shall contain the information listed in Section D.6.e.

#### 8. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the state administrative authority, it shall promptly submit such facts or information.

#### 9. Discharges of Toxic Substances

In addition to the reporting requirements under Section D.1-8, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Office of Environmental Services, Water Permits Division as soon as they know or have reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant:
  - i. listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
    - (1) One hundred micrograms per liter (100 µg/L);
    - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4 -dinitro-phenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC33:IX.2501.G.7; or
    - (4) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F; or
  - ii. which exceeds the reportable quantity levels for pollutants at LAC 33:I. Subchapter E.

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- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant:
  - i. listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
    - (1) Five hundred micrograms per liter (500 µg/L);
    - (2) One milligram per liter (1 mg/L) for antimony;
    - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC 33:IX.2501.G.7; or
    - (4) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F; or
  - ii. which exceeds the reportable quantity levels for pollutants at LAC 33:I. Subchapter E.

#### 10. Signatory Requirements

All applications, reports, or information submitted to the state administrative authority shall be signed and certified.

- a. All permit applications shall be signed as follows:

- (1) For a corporation - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
  - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or,
  - (b) The manager of one or more manufacturing, production, or operating facilities, provided: the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to ensure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

**NOTE:** DEQ does not require specific assignments or delegations of authority to responsible corporate officers identified in Section D.10.a.(1)(a). The agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the state administrative authority to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Section D.10.a.(1)(b) rather than to specific individuals.

- (2) For a partnership or sole proprietorship - by a general partner or the proprietor, respectively; or
- (3) For a municipality, state, federal, or other public agency - by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes:
  - (a) The chief executive officer of the agency, or
  - (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
- b. All reports required by permits and other information requested by the state administrative authority shall be signed by a person described in Section D.10.a., or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - (1) The authorization is made in writing by a person described in Section D.10.a. of these standard conditions;

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- (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (a duly authorized representative may thus be either a named individual or an individual occupying a named position; and,
- (3) The written authorization is submitted to the state administrative authority.
- c. Changes to authorization. If an authorization under Section D.10.b. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Section D.10.b. must be submitted to the state administrative authority prior to or together with any reports, information, or applications to be signed by an authorized representative.
- d. Certification. Any person signing a document under Section D.10. a. or b. above, shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

#### 11. Availability of Reports

All recorded information (completed permit application forms, fact sheets, draft permits, or any public document) not classified as confidential information under R.S. 30:2030(A) and 30:2074(D) and designated as such in accordance with these regulations (LAC 33:IX.2323 and LAC 33:IX.6503) shall be made available to the public for inspection and copying during normal working hours in accordance with the Public Records Act, R.S. 44:1 et seq.

Claims of confidentiality for the following will be denied:

- a. The name and address of any permit applicant or permittee;
- b. Permit applications, permits, and effluent data.
- c. Information required by LPDES application forms provided by the state administrative authority under LAC 33:IX.2501 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

### SECTION E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITION

#### 1. Criminal

##### a. Negligent Violations

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who negligently violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any such provision in a permit issued under the LPDES by the secretary, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than \$50,000 per day of violation, or imprisonment of not more than two years, or both.

##### b. Knowing Violations

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any permit condition or limitation implementing any such provisions in a permit issued under the LPDES, or any requirement imposed in a pretreatment program approved under

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the LPDES is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than \$100,000 per day of violation, or imprisonment of not more than six years, or both.

c. Knowing Endangerment

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any of such provisions in a permit issued under the LPDES by the secretary, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000, or by imprisonment for not more than 15 years, or both. A person which is an organization shall, upon conviction of violating this Paragraph, be subject to a fine of not more than one million dollars. If a conviction of a person is for a violation committed after a first conviction of such person under this Paragraph, the maximum punishment shall be doubled with respect to both fine and imprisonment.

d. False Statements

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the LPDES or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the LPDES, shall, upon conviction, be subject to a fine of not more than \$10,000, or imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this Subsection, he shall be subject to a fine of not more than \$20,000 per day of violation, or imprisonment of not more than 4 years, or both.

2. Civil Penalties

The Louisiana Revised Statutes LA. R. S. 30:2025 provides that any person found to be in violation of any requirement of this Subtitle may be liable for a civil penalty, to be assessed by the secretary, an assistant secretary, or the court, of not more than the cost to the state of any response action made necessary by such violation which is not voluntarily paid by the violator, and a penalty of not more than \$32,500 for each day of violation. However, when any such violation is done intentionally, willfully, or knowingly, or results in a discharge or disposal which causes irreparable or severe damage to the environment or if the substance discharged is one which endangers human life or health, such person may be liable for an additional penalty of not more than one million dollars.

(PLEASE NOTE: These penalties are listed in their entirety in Subtitle II of Title 30 of the Louisiana Revised Statutes.)

SECTION F. DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act shall apply to this permit and are incorporated herein by reference. Additional definitions of words or phrases used in this permit are as follows:

1. Clean Water Act (CWA) means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended by Pub.L. 95-217, Pub.L. 95-576, Pub.L. 96-483 and Pub.L. 97-117, 33 U.S.C. 1251 et. seq.).
2. Accreditation means the formal recognition by the department of a laboratory's competence wherein specific tests or types of tests can be accurately and successfully performed in compliance with all minimum requirements set forth in the regulations regarding laboratory accreditation.
3. Administrator means the Administrator of the U.S. Environmental Protection Agency, or an authorized representative.

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4. Applicable Standards and Limitations means all state, interstate and federal standards and limitations to which a discharge is subject under the Clean Water Act, including, effluent limitations, water quality standards of performance, toxic effluent standards or prohibitions, best management practices, and pretreatment standards under Sections 301, 302, 303, 304, 306, 307, 308 and 403.
5. Applicable water quality standards means all water quality standards to which a discharge is subject under the Clean Water Act.
6. Commercial Laboratory means any laboratory, wherever located, that performs analyses or tests for third parties for a fee or other compensation and provides chemical analyses, analytical results, or other test data to the department. The term commercial laboratory does not include laboratories accredited by the Louisiana Department of Health and Hospitals in accordance with R.S.49:1001 et seq.
7. Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day. Daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample.
8. Daily Maximum discharge limitation means the highest allowable "daily discharge".
9. Director means the U.S. Environmental Protection Agency Regional Administrator, or the state administrative authority, or an authorized representative.
10. Domestic septage means either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from grease trap at a restaurant.
11. Domestic sewage means waste and wastewater from humans, or household operations that is discharged to or otherwise enters a treatment works.
12. Environmental Protection Agency or (EPA) means the U.S. Environmental Protection Agency.
13. Grab sample means an individual sample collected over a period of time not exceeding 15 minutes, unless more time is needed to collect an adequate sample, and is representative of the discharge.
14. Industrial user means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.
15. LEQA means the Louisiana Environmental Quality Act.
16. Louisiana Pollutant Discharge Elimination System (LPDES) means those portions of the Louisiana Environmental Quality Act and the Louisiana Water Control Law and all regulations promulgated under their authority which are deemed equivalent to the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act in accordance with Section 402 of the Clean Water Act and all applicable federal regulations.



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17. Monthly Average, other than for fecal coliform bacteria, discharge limitations are calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes monthly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the monthly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily discharge concentration, F = daily flow and n = number of daily samples; monthly average discharge =

$$\frac{C_1F_1 + C_2F_2 + \dots + C_nF_n}{F_1 + F_2 + \dots + F_n}$$

When the permit establishes monthly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the monthly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar month.

The monthly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.

18. National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Clean Water Act.
19. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
20. Sewage sludge means a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; portable toilet pumpings, type III marine sanitation device pumpings (33 CFR part 159); and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.
21. Stormwater Runoff—aqueous surface runoff including any soluble or suspended material mobilized by naturally occurring precipitation events.
22. Surface Water: all lakes, bays, rivers, streams, springs, ponds, impounding reservoirs, wetlands, swamps, marshes, water sources, drainage systems and other surface water, natural or artificial, public or private within the state or under its jurisdiction that are not part of a treatment system allowed by state law, regulation, or permit.
23. Treatment works means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Clean Water Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof. (See Part 212 of the Clean Water Act)
24. For fecal coliform bacteria, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.
25. The term MGD shall mean million gallons per day.
26. The term GPD shall mean gallons per day.

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27. The term mg/L shall mean milligrams per liter or parts per million (ppm).
28. The term SPC shall mean Spill Prevention and Control. Plan covering the release of pollutants as defined by the Louisiana Administrative Code (LAC 33:IX.9).
29. The term SPCC shall mean Spill Prevention Control and Countermeasures Plan. Plan covering the release of pollutants as defined in 40 CFR Part 112.
30. The term µg/L shall mean micrograms per liter or parts per billion (ppb).
31. The term ng/L shall mean nanograms per liter or parts per trillion (ppt).
32. Visible Sheen: a silvery or metallic sheen, gloss, or increased reflectivity; visual color; or iridescence on the water surface.
33. Wastewater—liquid waste resulting from commercial, municipal, private, or industrial processes. Wastewater includes, but is not limited to, cooling and condensing waters, sanitary sewage, industrial waste, and contaminated rainwater runoff.
34. Waters of the State: for the purposes of the Louisiana Pollutant Discharge Elimination system, all surface waters within the state of Louisiana and, on the coastline of Louisiana and the Gulf of Mexico, all surface waters extending there from three miles into the Gulf of Mexico. For purposes of the Louisiana Pollutant Discharge Elimination System, this includes all surface waters which are subject to the ebb and flow of the tide, lakes, rivers, streams, (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, impoundments of waters within the state of Louisiana otherwise defined as "waters of the United States" in 40 CFR 122.2, and tributaries of all such waters. "Waters of the state" does not include waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act, 33 U.S.C. 1251 et seq.
35. Weekly average, other than for fecal coliform bacteria, is the highest allowable arithmetic mean of the daily discharges over a calendar week, calculated as the sum of all "daily discharge(s)" measured during a calendar week divided by the number of "daily discharge(s)" measured during that week. When the permit establishes weekly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the weekly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar week where C = daily discharge concentration, F = daily flow and n = number of daily samples; weekly average discharge

$$= \frac{C_1F_1 + C_2F_2 + \dots + C_nF_n}{F_1 + F_2 + \dots + F_n}$$

When the permit establishes weekly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the weekly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar week.

The weekly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

36. Sanitary Wastewater Term(s):

- a. 3-hour composite sample consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 3-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 3-hour period.
- b. 6-hour composite sample consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 6-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 6-hour period.

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- c. 12-hour composite sample consists of 12 effluent portions collected no closer together than one hour over the 12-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 12-hour period. The daily sampling intervals shall include the highest flow periods.
- d. 24-hour composite sample consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample continuously collected in proportion to flow over the 24-hour period.

Fact Sheet and Rationale  
The Dow Chemical Company, Louisiana Operations – Plaquemine

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**LPDES PERMIT NO. LA0003301, AI No. 1409**

**LPDES FACT SHEET and RATIONALE**  
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM  
(LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

- I. Company/Facility Name:** The Dow Chemical Company  
Louisiana Operations  
Post Office Box 150  
Plaquemine, Louisiana 70765
- II. Issuing Office:** Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services  
Post Office Box 4313  
Baton Rouge, Louisiana 70821-4313
- III. Prepared By:** Brian Mueller  
Water Quality Protection Division (6WQ-PP)  
Phone #: (214) 665-7167  
E-mail: mueller.brian@epamail.epa.gov

**LDEQ Contact:** Sonja Loyd  
Industrial Permits Section  
Water Permits Division  
Phone #: (225) 219-3090  
E-mail: sonja.loyd@la.gov

**Date Prepared:** May 08, 2008

**IV. Permit Action/Status:**

**A. Reason For Permit Action:**

Proposed reissuance of an existing Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.4901, 4903, and 2301.F.

- B. LPDES permit -** LPDES permit effective date: March 1, 2002  
LPDES permit expiration date: November 30, 2006  
EPA has not retained enforcement authority.

**LPDES Multi-Sector General Permit – (LAR05N128)**

LPDES permit effective date: May 1, 2006  
LPDES permit issuance date: May 24, 2006  
LPDES permit expiration date: April 30, 2011

Fact Sheet and Rationale  
The Dow Chemical Company, Louisiana Operations – Plaquemine

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- C. Application received on May 24, 2006 with addenda received on July 5, 2007, August 20, 2007, November 14, 2007, April 21, 2008, April 28, 2009, and May 18, 2009. Additional information received via email correspondence on May 12, 2009, June 26, 2009, July 9, 2009, and July 21, 2009.

**V. Facility Information:**

**A. Location –**

The facility is located at 21255 Louisiana Highway 1 in Plaquemine, Louisiana in both Iberville and West Baton Rouge Parishes (Latitude 30°18'50", Longitude 91°14'26").

**B. Applicant Activity -**

The Louisiana Operation has numerous production plants, power and steam generation units, waste handling facilities, and docks for barges and ships. The major raw materials for the division include brine, hydrocarbon liquids, and fuel gas. From these raw materials, power, chlorine, caustic, ethylene, and propylene are produced as intermediates. Approximately 50 different chemicals are produced for distribution around the world.

Several corporations (embedded at or adjacent to the Plaquemine site) discharge to the Plaquemine system. These include:

INEOS – INEOS is a chemical manufacturing facility that discharges wastewater and storm water under LPDES Permit No. LA0115100 to the Plaquemine cooling water return system. Process wastewater from INEOS is discharged to the Plaquemine central wastewater treatment plant (WWTP) for treatment.

Air Products – The Air Products facility discharges under LPDES Permit LA0063860 to the Plaquemine cooling water return system.

Air Liquide – The Air Liquide facility discharges stormwater, process water, and treated sanitary water under LPDES Permit LA0050695 to the Plaquemine cooling water return system.

PolyOne – The PolyOne facility is a polyvinyl chloride (PVC) resin mixing plant. As currently permitted under LPDES Permit LA0006165, the discharges include once through non-contact cooling water, excess well water, process area washdown water, and stormwater runoff to the Plaquemine cooling water return system.

The following Dow service facility at the Plaquemine site discharges to the Plaquemine system:

Transport Service Co. – Wastewater from their Tank Truck Wash Facility located near Loading Dock 2 is sent to the central WWTP via a pipeline.

- C. Technology Basis - (40 CFR Chapter 1, Subchapter N/Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903)

Guideline  
Organic Chemicals, Plastics,  
and Synthetic Fibers

Reference  
40 CFR 414  
Subparts D, F, G, H, I, and J

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Inorganic Chemicals  
Chlor Alkali

40 CFR 415  
Subpart F

Outfall	Plant	OCPSF Subpart D 414.41	OCPSF Subpart F 414.61	OCPSF Subpart G 414.71	OCPSF Subpart H 414.81	Inorganic Subpart F 415.62
111 (1081)	Polyethylene A	100%				
121 (931)	Polyethylene B	100%				
311 (531) – Phase I	Solvents/EDC 1		78%	22%		
311 (531) – Phase II	Solvents/EDC 1			100%		
411 (301)	Chlorine and Caustic I					100%
421 (911)	Polyethylene B	100%				
511 (2501)	Vector SBC	100%				
521 (1521)	Chlorinated Methanes			100%		
541 (1531)	Chlorinated Methanes			100%		
551 (741)	LHC II		100%			
611 (1711)	Vinyl II		100%			
621 (2241)	LHC III		100%			
631 (2001) – Phase I	Environmental Operations	1.3%	83.8%	11.5%	3.4%	
631 (2001) – Phase II	Environmental Operations	1.7%	77.8%	15.8%	4.7%	
641 (3121)	Polyethylene C	100%				

Other sources of technology based limits:

LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6).

Best Professional Judgement

Current Permit

- D. Fee Rate -
1. Fee Rating Facility Type: major
  2. Complexity Type: VI
  3. Wastewater Type: II
  4. SIC codes: 2869, 2821, 2819, and 2812
- E. Continuous Facility Effluent Flow - 597 MGD

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**VI. Receiving Waters:** Mississippi River (Outfalls 001 and 002)

**Mississippi River (Outfalls 001 and 002)**

1. TSS (15%), mg/L: 32
2. Average Hardness, mg/L  $\text{CaCO}_3$ : 153.4
3. Critical Flow, cfs: 141,955
4. Mixing Zone Fraction: 1/3
5. Harmonic Mean Flow, cfs: 366,748
6. River Basin: Mississippi River, Subsegment No. 070301
7. Designated Uses:  
primary contact recreation, secondary contact recreation, fish and wildlife propagation, and drinking water supply.

Information based on the following: LAC 33:IX Chapter 11 and Recommendation(s) from the Engineering Section. Hardness and 15% TSS data come from a memorandum from Brian Baker (LDEQ Engineering Section) to Sonja Loyd (LDEQ Water Permits Division), dated August 25, 2006.

**VII. Outfall Information:**

Outfall 001

- A. Type of wastewater - This final outfall consists of the discharge of Cooling Water Return (CWR) Canal A to the Mississippi River. CWR Canal A receives flow from Canals B, C, D, E, and F, and includes the wastewaters described in all internal outfalls within the manufacturing areas, as well as, stormwater runoff, once through cooling water, and utility wastewater flows (i.e., hydrostatic test water, hydroblast water, deluge test water, fire hydrant test water, condensate, utility discharge from turnaround activities, de-ionized (DI) water, air conditioner condensate, cooling tower blowdown, regeneration streams, water treatment discharges, steam traps, and clean equipment/slab wash down).
- B. Location - At the point of discharge from the intake to the Cooling Water Return pump station prior to pumping the cooling water over the levee and into the Mississippi River at Latitude 30°18'35", Longitude 91°13'48".
- C. Treatment - treatment of process wastewaters from all of the internal outfalls consists of:  
- neutralization
- D. Flow - Continuous Flow, 597 MGD
- E. Receiving waters - Mississippi River
- F. Basin and Subsegment - Mississippi River Basin, Subsegment No. 070301

Internal Outfall 101 (previously named Internal Outfall 112 in the May 2006 Application)

- A. Type of wastewater - Internal Outfall 101 (112) on CWR Canal B discharge consists of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, discharges from Internal outfalls 121 (931) and 111 (1081), and discharges from neighboring company PolyOne. This Internal outfall discharges to CWR Canal A and then to Outfall 001.

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- B. Location - At the point of discharge from the southern end of CWR Canal B, prior to mixing with other waters in CWR Canal A at Latitude 30°18'43", Longitude 91°13'59".
- C. Treatment - treatment of process wastewaters consists of:
  - neutralization
- D. Flow - Continuous Flow, 106 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 111 (previously named Internal Outfall 1081 in the May 2006 Application)

- A. Type of wastewater - This internal outfall is a virtual outfall consisting of the discharge of OCPSF process wastewater and OCPSF process area stormwater, once through cooling water, and utility wastewater from the Polyethylene A Plant. The sampling locations discharge to CWR Canal B, through Internal Outfall 101 (112), then to Outfall 001.
- B. Location - Polyethylene A Plant – The virtual Internal outfall coordinates are Latitude 30°18'58", Longitude 91°13'38".

Internal Outfall consists of five sampling locations. Sampling Location 1031 (North side at overflow weir), Sampling Location 1041 (Northeast side at overflow weir), Sampling Location 1051 (Middle of block at swimming pool overflow weir), Sampling Location 1061 (Southeast corner of block in concrete ditch) and Sampling Location 1071 (Middle of block at SK-120G skimmer). All are sampled before discharge from the Polyethylene A Plant in Block 8, prior to mixing with other waters in CWR Canal B.

- C. Treatment - treatment of process wastewaters consists of:
  - over/underflow weir (oil removal)
- D. Flow - Continuous Flow, 2.0 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 121 (previously Internal Outfall 931)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, once through cooling water, and utility wastewater from the Polyethylene B Plant. This internal outfall discharges to CWR Canal B, through Internal Outfall 101 (112), and then to Outfall 001.
- B. Location - Polyethylene B Plant – The virtual internal outfall coordinates are Latitude 30°19'03", Longitude 91°13'38".

This internal outfall consists of two components which discharge separately at the southeast corner of the Polyethylene B Plant, just west of the fence line in Block 9, prior to mixing with other waters in CWR Canal B. Location 121A is sampled at the effluent for pit 7 and 121B is sampled on the north side of the plant at pit 32.

- C. Treatment - treatment of process wastewaters consists of:
  - over/underflow weir (oil removal)
- D. Flow - Continuous Flow, 0.362 MGD



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- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 201 (previously Internal Outfall 521)

- A. Type of wastewater - This internal outfall consists of the discharge of non-categorical process wastewater, once through cooling water, utility wastewater, and non-process area stormwater from the Solvents/EDC I Plant. This internal outfall discharges to CWR Canal A and then to Outfall 001.
- B. Location - Solvents/EDC I Plant - At the point of discharge from the Solvents/EDC I Plant TTU lined ditch, from a catwalk in the northeast corner of Block 15, prior to mixing with other waters in CWR Canal A at Latitude 30°18'52", Longitude 91°14'00".
- C. Treatment - treatment of process wastewaters consists of:  
- neutralization  
- dechlorination
- D. Flow - Continuous Flow, 2.09 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 301 (previously named Internal Outfall 114 in the May 2006 Application)

- A. Type of wastewater - Internal Outfall 301 (114) on CWR Canal D discharge consists of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, post first flush OCPSF stormwater, and discharges from Internal Outfall 311 (531). This internal outfall discharges to CWR Canal A and then to Outfall 001.
- B. Location - At the point of discharge from the southern end of CWR Canal D, prior to mixing with other waters in CWR Canal A at Latitude 30°18'51", Longitude 91°14'10".
- C. Treatment - treatment of process wastewaters consists of:  
- neutralization
- D. Flow - Continuous Flow, 61.9 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 311 (previously Internal Outfall 531)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, non-categorical process wastewater, recovered groundwater, once through cooling water, and utility wastewater from the Solvents/EDC I Plant. This internal outfall discharges to CWR Canal D, through Internal Outfall 301 (114), and then to Outfall 001.
- B. Location - Solvents/EDC I Plant - At the point of discharge southeast of the Solvents/EDC I Plant control room (Building 1617) in Block 16, prior to mixing with other waters in CWR Canal D at Latitude 30°18'57", Longitude 91°14'03".
- C. Treatment - treatment of process wastewaters consists of:  
- steam stripping  
- neutralization

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- D. Flow - Continuous Flow, 8.45 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 401 (previously named Internal Outfall 115 in the May 2006 Application)

- A. Type of wastewater - Internal Outfall 401 (115) on CWR Canal E discharge consists of cooling water returns, fire deluge water, utility wastewater, carbon bed backwash, non-process area stormwater, discharges from Internal Outfalls 421 (911) and 411 (301), and discharges from Power III. This internal outfall discharges to CWR Canal A and then to Outfall 001.
- B. Location - At the point of discharge from the southern end of CWR Canal E, prior to mixing with other waters in CWR Canal A at Latitude 30°18'58", Longitude 91°14'18".
- C. Treatment - treatment of process wastewaters consists of:  
- neutralization
- D. Flow - Continuous Flow, 143.7 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 411 (previously Internal Outfall 301)

- A. Type of wastewater - This internal outfall is a virtual outfall consisting of the discharge of inorganic process wastewater, process area stormwater, once through cooling water, and utility wastewater from the Chlorine Plant and the discharge of inorganic process wastewater, process area stormwater, non-process area stormwater, and utility wastewater from the Caustic Plant. This internal outfall discharges to CWR Canal E, through Internal Outfall 401 (115), and then to Outfall 001.
- B. Location - The virtual internal outfall coordinates are Latitude 30°19'06", Longitude 91°14'09".  
  
Chlorine Plant - Internal Outfall consists of three components: one at the point of discharge from the 48-inch concrete trench on the east side of CWR Canal E in Block 26 and two upstream in the concrete trench for TSS sampling locations (OFT-10 and OFT-CSS). All three are prior to mixing with other waters in CWR Canal E.  
  
Caustic Plant - Located at point of discharge from the 36-inch flume located on the south side of the caustic block, prior to mixing with other waters in CWR Canal E.
- C. Treatment - treatment of process wastewaters consists of:  
- neutralization
- D. Flow - Continuous Flow, 20.1 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 421 (previously Internal Outfall 911)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSP process wastewater, OCPSP process area stormwater, once through cooling water, and utility

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wastewater from the Polyethylene B Plant. This internal outfall discharges to CWR Canal E, through Internal Outfall 401 (115), and then to Outfall 001.

- B. Location - Polyethylene B Plant – At the point of discharge from 421A (911A) located at the southwest corner of the Polyethylene B Plant, at the corner of North Canal Road and the railroad track in Block 9, prior to mixing with other waters in CWR Canal E at Latitude 30°19'09", Longitude 91°13'44".
- C. Treatment - treatment of process wastewaters consists of:
  - over/underflow weir (oil removal)
- D. Flow - Continuous Flow, 2.55 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 501 (previously named Internal Outfall 116 in the May 2006 Application)

- A. Type of wastewater - Internal Outfall 501 (116) on CWR Canal A upstream of CWR of Canal E discharge consists of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, post first-flush OCPSF storm water, discharges from Internal Outfalls 541 (1531), 521 (1521), 531 (1561), 511 (2501), and 601 (117), and discharges from embedded company (INEOS). This internal outfall discharges to CWR Canal A and then to Outfall 001.
- B. Location - At the point of discharge from the southwestern end of CWR Canal A prior to mixing with other waters in CWR Canal E at Latitude 30°18'58", Longitude 91°14'21".
- C. Treatment - treatment of process wastewaters consists of:
  - neutralization
- D. Flow - Continuous Flow, 283.3 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 511 (previously Internal Outfall 2501)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area storm water, utility wastewater, and non-process area stormwater from the Vector SBC Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Vector Styrene, Butadiene, Copolymer (SBC) Plant – At the point of discharge from the weir in the concrete ditch at the northwest corner of the Vector SBC Plant in Block 43, prior to mixing with other waters in CWR Canal A at Latitude 30°19'00", Longitude 91°14'31".
- C. Treatment - treatment of process wastewaters consists of:
  - over/underflow weir (oil removal)
  - pellet traps
- D. Flow - Intermittent Flow, 0.425 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 521 (previously Internal Outfall 1521)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSP process wastewater, OCPSP process area storm water, non-process area storm water, once through cooling water, and utility wastewater from the Chlorinated Methanes Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Chlorinated Methanes Plant - At the point of discharge from the North side of the sump outfall weir on the southwest side of Chlorinated Methanes Plant in Block 46, prior to mixing with other waters in CWR Canal A at Latitude 30°19'12", Longitude 91°14'28".
- C. Treatment - treatment of process wastewaters consists of:
  - air stripper (as needed)
- D. Flow - Intermittent Flow, 1.30 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 531 (previously Internal Outfall 1561)

- A. Type of wastewater - This internal outfall consists of the discharge of non-categorical process wastewater (thermal treatment unit) from the Chlorinated Methanes Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Chlorinated Methanes Plant - At the point of discharge from the Chlorinated Methanes Plant thermal treatment unit (TTU), at the discharge piping sample point on the west side of the shot pond in Block 46, prior to mixing with other waters in CWR Canal A at Latitude 30°19'10", Longitude 91°14'24".
- C. Treatment - treatment of process wastewaters consists of:
  - neutralization
- D. Flow - Continuous Flow, 0.334 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 541 (previously Internal Outfall 1531)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSP process wastewater from the Chlorinated Methanes Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Chlorinated Methanes Plant - At the point of the discharge piping sample point from the steam column, on the southwest side of Chlorinated Methanes Plant in Block 46, prior to mixing with other waters in CWR Canal A at Latitude 30°19'14", Longitude 91°14'26".
- C. Treatment - treatment of process wastewaters consists of:
  - steam stripper
- D. Flow - Continuous Flow, 0.077 MGD

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- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 551 (previously Internal Outfall 741)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, once through cooling water, and utility wastewater from the LHC II Plant. This internal outfall discharges to CWR Canal F, through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Light Hydrocarbons #2 (LHC II) Plant - At the point of discharge from the LHC II Plant on the western side of Block 48, prior to mixing with other waters in CWR Canal F at Latitude 30°19'27", Longitude 91°14'15".
- C. Treatment - treatment of process wastewaters consists of:  
- over/underflow weir (oil removal)
- D. Flow - Intermittent Flow, 0.879 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 601 (previously named Internal Outfall 117 in the May 2006 Application)

- A. Type of wastewater - Internal Outfall 601 (117) on CWR Canal G discharge consists of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, and Internal Outfalls 631 (2001), 641 (3121), 621 (2241), 611 (1711), 651 (3001), and 551 (741) and discharges from embedded companies (Air Products and Air Liquide). This internal outfall discharges to CWR Canal F, through Internal Outfall 501 (116) and then to Outfall 001.
- B. Location - At the point of discharge from the southern end of CWR Canal G, prior to mixing with other waters in CWR Canal F at Latitude 30°19'25", Longitude 91°14'22".
- C. Treatment - treatment of process wastewaters consists of:  
- neutralization
- D. Flow - Continuous Flow, 25.9 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 611 (previously Internal Outfall 1711)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, once through cooling water, and utility wastewater from the Vinyl II Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Vinyl II Plant - At the point of discharge from the ditch at the northeast corner of the Vinyl II Plant in Block 66, prior to mixing with other waters in CWR Canal G at Latitude 30°19'26", Longitude 91°14'30".
- C. Treatment - treatment of process wastewaters consists of:  
- steam stripper  
- neutralization

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- D. Flow - Continuous Flow, 4.16 MGD (Phase I) and 11.25 MGD (Phase II)
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 621 (previously Internal Outfall 2241)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, and utility wastewater from Light Hydrocarbons III Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Light Hydrocarbons III (LHC III) Plant - At the point of discharge from the central sump located at the southeast corner of the LHC III Plant in Block 68, prior to mixing with other waters in CWR Canal G at Latitude 30°19'30", Longitude 91°14'28".
- C. Treatment - treatment of process wastewaters consists of:
  - none
- D. Flow - Intermittent Flow, 0.409 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 631 (previously Internal Outfall 2001)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater (including wastewater from the INEOS facility), OCPSF process area stormwater, sanitary wastewater, utility wastewater, and OCPSF wastewater (landfill operations) from the Environmental Operations Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Environmental Operations - At the point of discharge from the effluent ditch associated with the Environmental Operations in Block 80, prior to mixing with other waters in CWR Canal G at Latitude 30°19'53", Longitude 91°14'22".
- C. Treatment - treatment of process wastewaters consists of:
  - equalization
  - biological aeration
  - clarification
  - pH adjustment
  - sludge dewatering
- D. Flow - Continuous Flow, 17.9 MGD (Phase I) and 17.6 MGD (Phase II)
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 641 (previously Internal Outfall 3121)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, and utility wastewater from the Polyethylene C Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.

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- B. Location - Polyethylene C Plant – At the point of discharge from the effluent weir at the pond located on the northern side of the Polyethylene C Plant in Block 86, prior to mixing with other waters in CWR Canal G at Latitude 30°19'38", Longitude 91°14'40".
- C. Treatment - treatment of process wastewaters consists of:
  - over/underflow weir (oil removal)
  - pellet traps
- D. Flow - Continuous Flow, 0.568 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Internal Outfall 651 (previously Internal Outfall 3001)

- A. Type of wastewater - This internal outfall consists of recovered groundwater from the Northwest Landfill. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Northwest Landfill – At the point of discharge from the pump at the Northwest Landfill on the northern side of the Polyethylene C Plant in Block 86 at the discharge piping, prior to mixing with other waters in CWR Canal G at Latitude 30°20'03", Longitude 91°15'02".
- C. Treatment - treatment of process wastewaters consists of:
  - carbon absorption
- D. Flow - Intermittent Flow, 0.047 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

Outfall 002

- A. Type of wastewater - This final outfall consists of the discharge from Tank Farm Block 110 to the Mississippi River. Discharge sources include secondary containment stormwater and utility wastewater.
- B. Location – Tank Farm Block 110 – At the point of discharge from the south end of the oil water separator in Tank Farm Block 110, prior to pumping the discharge over the levee and into the Mississippi River at Latitude 30°20'25", Longitude 91°14'30".
- C. Treatment - treatment of clarifier underflow wastewaters consists of:
  - over/underflow weir (oil removal)
- D. Flow – Intermittent Flow, 0.211 MGD
- E. Receiving waters - Mississippi River
- F. Basin and Subsegment - Mississippi River Basin, Subsegment No. 070301

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### VIII. Proposed Permit Limits:

The specific effluent limitations and/or conditions will be found in the draft permit. Development and calculation of permit limits are detailed in the Permit Limit Rationale section below.

#### Summary of Proposed Changes From the Current LPDES Permit:

- A. The permittee requested an effective date extension of one-hundred and twenty (120) days since the changes in the proposed permit changes will cause significant alterations in the outfall monitoring and management systems. The permittee's request has been granted.
- B. The outfall naming nomenclature for all of the internal outfalls has been changed to coincide with LDEQ's naming convention based on information provided by the permittee in the April 23, 2009 Application Addendum. The internal outfall numbers listed in the current permit have been placed in parentheses for reference purposes.
- C. The technology-based mass limits for those internal outfalls that contain mass limits have been changed as a result of the flow rates provided by the permittee in the May 2006 Application and associated addendums.
- D. The permittee requested monitoring frequency reductions in accordance with the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996). See Appendix C for a listing of the monitoring frequency reductions that have been granted in accordance with the guidance document mentioned above or by department discretion.
- E. Outfall 001

The permittee requested that a monitoring requirement for several constituents of concern from potential groundwater inputs into the return canal system be added into the draft permit. The permittee also requested that the monitoring frequency for these parameters be once per year using a grab sample. These requests have been granted.

The permittee is required to sum the mass loading of hexachlorobenzene for several internal outfalls in the current permit in order to determine compliance with the water quality-based limit for this parameter. However, the permittee requested that this parameter be measured at the final outfall instead of the internal outfalls in this draft permit. This request has been granted.

The permittee's request for a monitoring frequency reduction for hexachlorobenzene from once per week to once every two (2) months in accordance with the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996) will not be granted per implementation procedures for surface water quality standards since this constituent is on-site and limited based on water quality.

The Whole Effluent Toxicity (WET) testing dilution series for Freshwater Acute biomonitoring will be changed to reflect 8%, 11%, 14%, 19%, and 26% (with 19% defined as the critical biomonitoring dilution). The monitoring frequency shall be once per quarter using a 24-hour composite sample. This revision is based on a recommendation from the Technical Support Section in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. The proposed biomonitoring requirements were developed in accordance with USEPA Region 6 policy and biomonitoring protocol which is being established in all major permits as a part of the permit reissuance.



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process. Updated Part II Conditions for the biomonitoring requirements will be established in the draft permit. See Appendix D for the Biomonitoring Recommendation.

The permittee requested a reduction in the monitoring frequency for WET testing from once per quarter to once/six (6) months. The proposed biomonitoring requirements were developed in accordance with USEPA Region 6 policy and biomonitoring protocol which have been established in all major permits as a part of the permit reissuance process. Therefore, the monitoring frequency will remain as proposed in the draft permit.

F. Internal Outfalls 101 (112), 301 (114), 401 (115), 501 (116), and 601 (117)

These new internal outfalls have been added for discharges at the ends of Cooling Water Return (CWR) Canals B, D, E, and G. The proposed new Internal Outfall 501 (116) is located in CWR Canal A upstream of the CWR Canal E discharge.

G. Internal Outfall 111 (1081)

This new internal outfall has been added for discharges from the Polyethylene A Plant. This internal outfall incorporates existing Internal Outfalls 1031, 1041, 1051, 1061, and 1071 into one virtual internal outfall. These internal outfalls will be designated as sampling locations for monitoring and reporting for the new internal outfall.

The permittee requested that the monitoring frequency for flow be established at once per month. The current permit established the monitoring frequency for flow at once per day for the internal outfalls named above. Therefore, the monitoring frequency for flow has been changed to once per week per department discretion.

The permittee requested a BOD<sub>5</sub> and TSS allocation of 20 mg/L (monthly average) and 30 mg/L (daily maximum) for utility wastewater based on discussions with EPA and LDEQ. This request will be granted by BPJ.

The permittee requested a BOD<sub>5</sub> and TSS allocation of 5 mg/L (monthly average) and 10 mg/L (daily maximum) for once-through cooling water and clarified cooling water based on discussions with EPA and LDEQ. This request will be granted by BPJ.

The permittee requested an allocation for Chloroform due to the contribution of a non-OCPSF source (once through cooling water) containing this constituent which is discharged from this internal outfall. Therefore, an allocation using the OCPSF limits (Subpart J) for Chloroform has been applied at this internal outfall by BPJ.

The permittee requested that the annual monitoring frequency for Chloroform be retained in the draft permit. However, the monitoring frequency will be changed to once per quarter based on the permittee's compliance history at Internal Outfall 1031 as it relates to this parameter. The permittee requested that a provision be placed in the draft permit that would allow the monitoring frequency to be reverted to once per year upon submittal of one year of sample data (twelve consecutive samples) which reflect discharges that comply with the permit limit for this parameter. The permittee also requested that the sample data be submitted within six (6) months following the monitoring frequency reduction indicating that the requirement to submit one year of sample data in compliance with the permit limits has been satisfied. These requests have been granted.

H. Internal Outfall 121(931)

The permittee requested that the monitoring frequency for flow be established at once per quarter. The current permit established the monitoring frequency for flow at once per day for this internal outfall. Therefore, the monitoring frequency for flow has been changed to once per week per department discretion.

The permittee requested a BOD<sub>5</sub> and TSS allocation of 20 mg/L (monthly average) and 30 mg/L (daily maximum) for utility wastewater based on discussions with EPA and LDEQ. This request will be granted by BPJ.

I. Internal Outfall 201 (521)

The current permit established a continuous monitoring frequency for flow at this internal outfall. The permittee requested that the monitoring frequency for flow be established at once per week to be consistent with the proposed monitoring frequency requested for the other parameters at this internal outfall. This request has been granted.

The permittee requested that two (2) phases be added into the draft permit for future shutdown of the Ethylene Dichloride manufacturing operations and cessation of process wastewater discharges from this operation which will occur in 2011. Under Phase II, the permittee requested that the monitoring frequency for 1,2 Dichloroethane be reduced from once per week to once per year. No change in the flow at this internal outfall is expected to occur under Phase II since the removal of process wastewater flow from the discharges at this internal outfall will be negligible. These requests have been granted.

Internal Outfall 301 (411)

The permittee requested that two (2) phases be added into the draft permit for future shutdown of the Ethylene Dichloride manufacturing operations and cessation of process wastewater discharges from this operation which will occur in 2011. Under Phase II, the permittee requested that the monitoring frequency for 1,2 Dichloroethane be reduced from once per week to once per year. These requests have been granted.

J. Internal Outfall 311 (531)

The permittee requested that two (2) phases be added into the draft permit for future shutdown of the Ethylene Dichloride manufacturing operations and cessation of process wastewater discharges from this operation which will occur in 2011. Under Phase II, the permittee indicated that although the Ethylene Dichloride wastewater would be ceasing that other flows will continue to be components in the discharge. Therefore, mass limits based on the new flows will be established for Phase II. This request has been granted.

The permittee's request that language be included in the draft permit allowing for an alternative procedure to continuously monitor for flow will be partially granted. A provision will be added in the Part II Conditions which allows an alternative procedure for continuous monitoring for flow. However, this provision will only apply to backup or auxiliary equipment used by the permittee to achieve compliance with the monitoring requirements for this parameter.

The permittee requested a BOD<sub>5</sub> and TSS allocation of 20 mg/L (monthly average) and 30 mg/L (daily maximum) for utility and non-categorical wastewater based on discussions with EPA and LDEQ. This request will be granted by BPJ.

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The permittee requested a BOD<sub>5</sub> allocation of 5 mg/L (monthly average) and 10 mg/L (daily maximum) for once-through cooling water based on discussions with EPA and LDEQ. This request will be granted by BPJ.

The permittee requested that a net allotment for TSS in the influent water be applied at this internal outfall. The permittee also requested that the sample type for TSS be changed to reflect a 24-hour composite sample instead of a grab sample. These requests have been granted.

K. Internal Outfall 401 (115)

On or about November 30, 2006, the permittee acquired Ventures Lease Company, LLC (now Power III) which was previously covered under LPDES permits LA0116602 and LAG670070. The permittee has requested that the discharges from this operation be monitored at this internal outfall and that the LPDES permits be terminated upon reissuance of the final permit. This request will be granted.

L. Internal Outfall 411 (301)

This internal outfall had two sampling locations (311 and 321) in the current permit. However, due to the shut down of the Chlor-alkali Plant, discharges no longer occur from Sampling Location 311. Therefore, since the Chlorine Plant (Sampling Location 321) and Caustic Plant (Sampling Location 341) are regulated under the same guidelines, the permittee requested that Sampling Location 341 be included as a sampling location for this internal outfall instead of Sampling Location 311. This request has been granted.

The wastestreams discharging from Sampling Location 341 were changed to reflect the removal of once through cooling water. Therefore, Sampling Location 341 has been redefined to include only process wastewater for this portion of the chlorine production process.

The permittee requested that the monitoring frequency for flow at Sampling Locations 321 and 341 be established at once per two (2) months to be consistent with the monitoring frequency requested for the other parameters. The flow at Sampling Location 321 is recorded continuously and estimated daily at Sampling Location 341. Therefore, this Office has decided to partially grant the permittee's request. The monitoring frequency will be changed to reflect once per month using an estimate in lieu of continuously using a recorder.

The permittee requested a monitoring frequency reduction from once per week to once per two (2) months for all of the parameters established at this internal outfall. However, it will be partially granted by department discretion for all of the parameters with the exception of Total Nickel. This determination is based on DMR sample data which demonstrated that the permittee has not had any violations (with the exception of Total Nickel) at this outfall within past two years. The monitoring frequency for these parameters will be changed to reflect once per month in lieu of once per week.

M. Internal Outfall 421 (911)

Due to the shut down of a manufacturing train in Polyethylene Plant B, one of the sampling locations for this internal outfall will be eliminated. This shut down will reduce the process wastewater component and the remaining discharge will contain primarily once through cooling water. Therefore, the permittee requested an allocation for Chloroform due to the contribution of a non-OCFPS source (once through cooling water) containing this constituent

which is discharged from this internal outfall. An allocation using the OCPSF limits (Subpart J) for Chloroform has been applied at this internal outfall by BPJ.

In addition, this change will also re-designate the stormwater from the decommissioned equipment area to be non-contact stormwater. Therefore, the permittee requested that allocations for BOD<sub>5</sub> and TSS of 10 mg/L (monthly average) and 20 mg/L (daily maximum) be applied to this discharge. This request has been granted.

The permittee requested that the monitoring frequency for flow be established at once per quarter. The current permit established the monitoring frequency for flow at once per day for this internal outfall. Therefore, the monitoring frequency for flow has been changed to once per week per department discretion.

The permittee requested a BOD<sub>5</sub> allocation of 5 mg/L (monthly average) and 10 mg/L (daily maximum) for once-through cooling water based on discussions with EPA and LDEQ. This request will be granted by BPJ.

N. Internal Outfall 501 (116)

Based on information provided in the 2006 Application, the discharges from Shintech Louisiana, LLC (LPDES permit LAR10D207) were designated to flow from this internal outfall into the Plaquemine cooling water return system. However, based on the June 25, 2007 Application Addendum, the discharges from this facility into the cooling water return system have been discontinued.

O. Internal Outfall 521 (1521)

The permittee reviewed Appendix A and B of the OCPSF guidelines to assess the inclusion of metal bearing wastestreams at the internal outfalls that discharge OCPSF wastewaters. Based on the permittee's review, the methyl chloride/hydrochlorination of methanol process at the Chlorinated Methanes Plant (CMP) was identified as a metal bearing wastestream listed for zinc. According to the permittee, a review of the Development Document for the OCPSF regulation cited zinc based catalysts or use as raw material as the reason for inclusion. The permittee certified that the CMP does not use zinc-based catalyst or raw materials in the process. Therefore, the permittee requested that limits for zinc not be established in the draft permit for discharges from the CMP. This request will be granted by BPJ.

P. Internal Outfall 531 (1561)

The permittee requested that a limit for TOC of 55 mg/L be established at this internal outfall in the draft permit. This request has been granted by BPJ.

Q. Internal Outfall 541 (1531)

The permittee requested that the sample method for all of the volatile compounds be changed from 24-hour composite sampling to grab due to personal safety concerns with elevated temperature of the discharges from this outfall. This request has been granted.

The permittee reviewed Appendix A and B of the OCPSF guidelines to assess the inclusion of metal bearing wastestreams at the internal outfalls that discharge OCPSF wastewaters. Based on the permittee's review, the methyl chloride/hydrochlorination of methanol process at the Chlorinated Methanes Plant (CMP) was identified as a metal bearing wastestream

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listed for zinc. According to the permittee, a review of the Development Document for the OCPSF regulation cited zinc based catalysts or use as raw material as the reason for inclusion. The permittee certified that the CMP does not use zinc-based catalyst or raw materials in the process. Therefore, the permittee requested that limits for zinc not be established in the draft permit for discharges from the CMP. This request will be granted by BPJ.

The permittee's request that language be included in the draft permit allowing for an alternative procedure to continuously monitor for flow will be partially granted. A provision will be added in the Part II Conditions which allows an alternative procedure for continuous monitoring for flow. However, this provision will only apply to backup or auxiliary equipment used by the permittee to achieve compliance with the monitoring requirements for this parameter.

R. Internal Outfall 551 (741)

The limits established at this internal outfall have been changed from mass limits to concentration limits due to the primary source of this discharge (stormwater) being infrequent and intermittent in nature.

The permittee's request that language be included in the draft permit allowing for an alternative procedure to continuously monitor for flow will be partially granted. A provision will be added in the Part II Conditions which allows an alternative procedure for continuous monitoring for flow. However, this provision will only apply to backup or auxiliary equipment used by the permittee to achieve compliance with the monitoring requirements for this parameter.

S. Internal Outfall 611 (1711)

The permittee indicated that the Vinyl II Plant will be shutdown in 2011. The permittee further indicated that it proposes to discontinue submission of DMRs for this internal outfall when the manufacturing related discharges cease. Therefore, this Office has decided that if the permittee chooses to discontinue submittal of DMRs that a minor modification will be required to remove this outfall from the permit prior to discontinuing the submittal of DMRs.

The permittee requested a BOD<sub>5</sub> and TSS allocation of 20 mg/L (monthly average) and 30 mg/L (daily maximum) for utility and non-categorical wastewater based on discussions with EPA and LDEQ. This request will be granted by BPJ.

The permittee's request that language be included in the draft permit allowing for an alternative procedure to continuously monitor for flow will be partially granted. A provision will be added in the Part II Conditions which allows an alternative procedure for continuous monitoring for flow. However, this provision will only apply to backup or auxiliary equipment used by the permittee to achieve compliance with the monitoring requirements for this parameter.

T. Internal Outfall 621 (2241)

The permittee requested that the monitoring frequency for flow be established at once per two (2) months. The current permit established the monitoring frequency for flow at once per day for this internal outfall. Therefore, the monitoring frequency for flow has been changed to once per week per department discretion.

U. Internal Outfall 631 (2001)

In the November 7, 2007 Application Addendum, the permittee requested that two (2) phases be added into the draft permit for shutdown of the rotary kiln and cessation of kiln discharges to the treatment system within the upcoming permit cycle. However, in a meeting on May 20, 2009, the permittee informed this Office that only Phase II would be needed since the rotary kiln has been shutdown and the kiln discharges have been eliminated. In the July 9, 2009 Application Addendum, the permittee requested that Phase III be included in the draft permit for future shutdown of the Vinyl II Plant. Under Phase III, the permittee requested that the mass limits be adjusted due to a change in flows and that the monitoring frequency for 1,2 Dichloroethane be reduced from once per week to once per year. This request has been granted; therefore, Phase II and III will be changed to reflect Phase I and II, respectively, in the draft permit.

The limits for pH have been removed from this outfall since this internal outfall discharges to a final outfall that contains limits for pH.

The permittee reviewed Appendix A and B of the OCPSF guidelines to assess the inclusion of metal bearing wastestreams at the internal outfalls that discharge OCPSF wastewaters. Based on the permittee's review, the 1,2 dichloroethane/oxychlorination of ethylene process at the Vinyl Plant was identified as a metal bearing wastestream listed for copper. According to the permittee, this wastestream and other wastestreams that contain metals are routed to the central Wastewater Treatment Plant for this outfall. Therefore, the permittee has requested that the OCPSF metal limits be applied at this outfall. However, only limits for Total Copper will be established at this internal outfall since the wastestream was identified as a metal bearing wastestream listed for copper. Mass limits and monitoring requirements for Total Copper will be established for both phases in the draft permit.

The permittee requested a BOD<sub>5</sub> and TSS allocation of 20 mg/L (monthly average) and 30 mg/L (daily maximum) for utility wastewater based on discussions with EPA and LDEQ. This request will be granted by BPJ.

The permittee requested a BOD<sub>5</sub> and TSS allocation of 30 mg/L (monthly average) and 45 mg/L (daily maximum) for sanitary wastewater based on discussions with EPA and LDEQ. This request will be granted by BPJ.

The permittee's request that language be included in the draft permit allowing for an alternative procedure to continuously monitor for flow will be partially granted. A provision will be added in the Part II Conditions which allows an alternative procedure for continuous monitoring for flow. However, this provision will only apply to backup or auxiliary equipment used by the permittee to achieve compliance with the monitoring requirements for this parameter.

V. Internal Outfall 651 (3001)

The limits for pH have been removed from this outfall since this internal outfall discharges to a final outfall that contains limits for pH.

W. Part II Conditions for implementation of 316(B) Phase II Rule requirements have been placed in the draft permit.

X. The provision in Part I of the current permit that requires the permittee to submit Discharge Monitoring Reports by the 25<sup>th</sup> day of the month following each reporting period will be

changed to reflect the 15<sup>th</sup> day of the month which is consistent with the DMR due date in all major permits.

- Y. The site Outfall Reduction Team evaluated all internal outfalls and identified opportunities to reduce the number of internal outfalls without increasing the potential to discharge pollutants. The evaluation concluded that a significant portion of the site's discharges had redundant management requirements and were already subject to formal and informal oversight programs that provided the protection expected from an official monitoring requirement. These included internal outfalls managed under formal federal and state spill programs or discharges that already received sufficient informal monitoring during routine process activities. Other internal outfalls in the current permit are inherently free of contaminants by the nature of their use, such as discharges from site utility facilities and CWR canals. The following table lists the outfalls that are proposed for reduction (i.e. removal) from the LPDES permit. See Appendix E for the Outfall Consolidation Project which includes the proposed outfall naming system applied to the internal outfalls listed below.

**List of Internal Outfalls Identified for Reduction**

<b>Outfall</b>	<b>Reason for Reduction</b>
111	Cooling water discharge will be monitored at new Outfall 401 (115).
211	Cooling water discharge and intermittent utility wastewater will be monitored at new Internal Outfall 501 (116).
231	Discharge will be routed to the central WWTP for treatment.
251	Storm water discharge will be monitored at new Internal Outfall 501 (116).
331	Cooling water and utility wastewater discharge will be monitored at new Internal Outfall 401 (115).
341	Included as part of virtual Internal Outfall 411 (301).
351	Cooling water discharge and utility wastewater will be monitored at new Internal Outfall 401 (115).
361	Cooling water discharge will be monitored at new Internal Outfall 401 (115).
371	Cooling water discharge will be monitored at new Internal Outfall 401 (115).
381	Cooling water discharge will be monitored at new Internal Outfall 401 (115).
3101	Storm water discharge will be monitored at new Internal Outfall 401 (115).
3331	Utility wastewater and stormwater discharge will be monitored at new Internal Outfall 301 (114).
3351	Stormwater discharge will be monitored at new Internal Outfall 401 (115).
3361	Stormwater discharge will be monitored at new Internal Outfall 401 (115).
411	Cooling water discharge will be monitored at new Internal Outfall 301 (114).
421	Cooling water and utility wastewater discharge will be monitored at new

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Outfall	Reason for Reduction
	Internal Outfall 301 (114).
431	Utility wastewater discharge will be monitored at new Internal Outfall 301 (114).
441	First flush will be implemented. Post first flush stormwater will be monitored at Internal Outfall 301 (114).
451	Cooling water, stormwater, and utility wastewater discharge will be monitored at new Internal Outfall 301 (114).
461	Cooling water discharge will be monitored at new Internal Outfall 301 (114).
471	Discharge will be routed to the central WWTP for treatment.
481	Utility wastewater and storm water discharge will be monitored at new Internal Outfall 301 (114).
491	Discharge will be routed to the central WWTP for treatment.
6201	Utility wastewater discharge will be monitored at new Internal Outfall 101 (112).
7401	Utility wastewater discharge will be monitored at Outfall 001.
511	Cooling water discharge and stormwater will be monitored at new Internal Outfall 301 (114).
541	Hydrochloric acid (HCL) scrubber water discharge will be monitored at new Internal Outfall 101 (112).
2911	Utility wastewater and stormwater discharge will be monitored at new Internal Outfall 101 (112).
2921	Utility wastewater and stormwater discharge will be monitored at Outfall 001.
2931	Utility wastewater and stormwater discharge will be monitored at Outfall 001.
2941	Utility wastewater and stormwater discharge will be monitored at Outfall 001.
2951	Utility wastewater and stormwater discharge will be monitored at Outfall 001.
2961	Utility wastewater and stormwater discharge will be monitored at new Internal Outfall 101 (112).
2971	Utility wastewater and stormwater discharge will be monitored at new Internal Outfall 101 (112).
711	Cooling water discharge will be monitored at new Internal Outfall 501 (116).
751	Utility wastewater, plant wash down water, cooling water, and stormwater discharge will be monitored at new Internal Outfall 115.
3911	Storm water discharge will be monitored at new Internal Outfall 501 (116).



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Outfall	Reason for Reduction
811	Cooling water discharge and post first flush stormwater will be monitored at new Internal Outfall 501 (116). First flush of storm water will be routed to the central WWTP.
1011	Cooling water discharge will be monitored at new Internal Outfall 101 (112).
1031	Included as part of virtual Internal Outfall 111 (1081)
1041	Included as part of virtual Internal Outfall 111 (1081)
1051	Included as part of virtual Internal Outfall 111 (1081)
1061	Included as part of virtual Internal Outfall 111 (1081)
1071	Included as part of virtual Internal Outfall 111 (1081)
1311	Cooling water and utility wastewater discharge will be monitored at new Internal Outfall 401 (115).
1321	Utility wastewater and storm water discharge will be monitored at new Internal Outfall 401 (115).
1411	Utility wastewater discharge will be monitored at new Internal Outfall 501 (116).
1551	Stormwater discharge will be monitored at new Internal Outfall 501 (116).
1731	Stormwater discharge will be monitored at new Internal Outfall 601 (117).
1831, 1841, 1851, and 1861	The LPDES outfalls associated with the Dowanol/Ethanolamines plant are under the operational control of INEOS, L.L.C. and are permitted under INEOS' LPDES Permit No. LA0115100, which was granted in August 2003. This transfer was discussed with Gary Aydeh of LDEQ in December of 2000. These include Internal Outfalls 1831, 1841, 1851, and 1861
1901	Utility wastewater and stormwater discharge will be monitored at new Internal Outfall 401 (115).
2231	Utility wastewater discharge will be monitored at new Internal Outfall 601 (117).
4031	Utility wastewater discharge will be monitored at new Internal Outfall 501 (116).
5811	Stormwater discharge will be monitored at new Internal Outfall 501 (116).
5821	Stormwater discharge will be monitored at new Internal Outfall 501 (116).
2511	Stormwater discharge will be monitored at new Internal Outfall 501 (116).
3131	Stormwater discharge and utility wastewater will be monitored at new Internal Outfall 601 (117).
551	Internal Outfall never existed in current permit. Included in current application, but was rerouted to the central WWTP before the final permit was issued.

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Outfall	Reason for Reduction
1101	Internal Outfall never existed in current permit. Included in current application, but was rerouted to the central WWTP before the final permit was issued.

#### IX. Permit Limit Rationale:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707/40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

##### A. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at LAC 33:IX.2707.L.2.b/40 CFR Part 122.44(l)(2)(ii), the draft permit limits are based on either technology-based effluent limits pursuant to LAC 33:IX.2707.A/40 CFR Part 122.44(a) or on State water quality standards and requirements pursuant to LAC 33:IX.2707.D/40 CFR Part 122.44(d), whichever are more stringent.

##### B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations promulgated at LAC 33:IX.2707.A/40 CFR Part 122.44(a) require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two. The following is a rationale for types of wastewaters. See outfall information descriptions for associated outfall(s) in Section VII.

#### Outfall 001

- A. Type of wastewater - This final outfall consists of the discharge of CWR Canal A to the Mississippi River. CWR Canal A receives flow from Canals B, C, D, E, and F, and includes the wastewaters described in all internal outfalls within the manufacturing areas, as well as, stormwater runoff, once through cooling water, and utility wastewater flows (i.e., hydrostatic test water, hydroblast water, deluge test water, fire hydrant test water, condensate, utility discharge from turnaround activities, de-ionized (DI) water, air conditioner condensate, cooling tower blowdown, regeneration streams, water treatment discharges, steam traps, and clean equipment/slab wash down).
- B. Location - At the point of discharge from the intake to the Cooling Water Return pump station prior to pumping the cooling water over the levee and into the Mississippi River at Latitude 30°18'35", Longitude 91°13'48".
- C. Treatment - treatment of process wastewaters from all of the internal outfalls consists of:
  - neutralization
- D. Flow - Continuous Flow, 597 MGD
- E. Receiving waters - Mississippi River

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- F. Permit Limitations – Current Permit and monitor (report) for selected groundwater constituents. See Appendix B for water quality limitation calculations for hexachlorobenzene.

Internal Outfall 101 (previously named Internal Outfall 112 in the May 2006 Application)

- A. Type of wastewater - Internal Outfall 101 (112) on CWR Canal B discharge consists of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, discharges from Internal outfalls 121 (931) and 111 (1081), and discharges from neighboring company PolyOne. This internal outfall discharges to CWR Canal A and then to Outfall 001.
- B. Location - At the point of discharge from the southern end of CWR Canal B, prior to mixing with other waters in CWR Canal A at Latitude 30°18'43", Longitude 91°13'59".
- C. Treatment - treatment of process wastewaters consists of:  
- neutralization
- D. Flow - Continuous Flow, 106 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitation --  
TOC 50 mg/L (Daily Maximum)  
Oil and Grease 15 mg/L (Daily Maximum)
- G. Basis - BPJ

Internal Outfall 111 (previously Internal Outfall 1081 in May 2006 Application)

- A. Type of wastewater - This internal outfall is a virtual outfall consisting of the discharge of OCPSP process wastewater and OCPSP process area stormwater, once through cooling water, and utility wastewater from the Polyethylene A Plant. The sampling locations discharge to CWR Canal B, through Internal Outfall 101 (112), then to Outfall 001.
- B. Location - Polyethylene A Plant – The virtual internal outfall coordinates are Latitude 30°18'58", Longitude 91°13'38".

Internal Outfall consists of five sampling locations. Sampling Location 1031 (North side at overflow weir), Sampling Location 1041 (Northeast side at overflow weir), Sampling Location 1051 (Middle of block at swimming pool overflow weir), Sampling Location 1061 (Southeast corner of block in concrete ditch) and Sampling Location (Middle of block at SK-120G skimmer). All are sampled before discharge from the Polyethylene A Plant in Block 8, prior to mixing with other waters in CWR Canal B.

- C. Treatment - treatment of process wastewaters consists of:  
- over/underflow weir (oil removal)
- D. Flow - Continuous Flow, 2.0 MGD
- F. Receiving waters - Mississippi River via Final Outfall 001
- G. Permit Limitations – OCPSP Subparts D and J - See Appendix A for calculations.

Internal Outfall 121 (previously Internal Outfall 931)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, once through cooling water, and utility wastewater from the Polyethylene B Plant. This internal outfall discharges to CWR Canal B, through Internal Outfall 101 (112), and then to Outfall 001.
- B. Location - Polyethylene B Plant – The virtual internal outfall coordinates are Latitude 30°19'03", Longitude 91°13'38".

This internal outfall consists of two components which discharge separately at the southeast corner of the Polyethylene B Plant, just west of the fence line in Block 9, prior to mixing with other waters in CWR Canal B. Location 121A is sampled at the effluent for pit 7 and 121B is sampled on the north side of the plant at pit 32.

- C. Treatment - treatment of process wastewaters consists of:
  - over/underflow weir (oil removal)
- D. Flow - Continuous Flow, 0.362 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations – OCPSF Subparts D and J - See Appendix A for calculations.

Internal Outfall 201 (previously Internal Outfall 521)

- A. Type of wastewater - This internal outfall consists of the discharge of non-categorical process wastewater, once through cooling water, utility wastewater, and non-process area stormwater from the Solvents/EDC I Plant. This internal outfall discharges to CWR Canal A and then to Outfall 001.
- B. Location - Solvents/EDC I Plant - At the point of discharge from the Solvents/EDC I Plant TTU lined ditch, from a catwalk in the northeast corner of Block 15, prior to mixing with other waters in CWR Canal A at Latitude 30°18'52", Longitude 91°14'00".
- C. Treatment - treatment of process wastewaters consists of:
  - neutralization
  - dechlorination
- D. Flow – Continuous Flow, 2.09 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations – Current Permit

Internal Outfall 301 (previously named Internal Outfall 114 in the May 2006 Application)

- A. Type of wastewater - Internal Outfall 301 (114) on CWR Canal D discharge consists of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, post first flush OCPSF stormwater, and discharges from Internal Outfall 311 (531). This internal outfall discharges to CWR Canal A and then to Outfall 001.

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- B. Location - At the point of discharge from the southern end of CWR Canal D, prior to mixing with other waters in CWR Canal A at Latitude 30°18'51", Longitude 91°14'10".
- C. Treatment - treatment of process wastewaters consists of:
  - neutralization
- D. Flow - Continuous Flow, 61.9 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations –
 

TOC	50 mg/L (Daily Maximum)
Oil and Grease	15 mg/L (Daily Maximum)
1,2 Dichloropropane	794 ug/L (Daily Maximum)
1,2 Dichloroethane	574 ug/L (Daily Maximum)

- G. Basis – BPJ

Internal Outfall 311 (previously Internal Outfall 531)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, non-categorical process wastewater, recovered groundwater, once through cooling water, and utility wastewater from the Solvents/EDC I Plant. This internal outfall discharges to CWR Canal D, through Internal Outfall 301 (114), and then to Outfall 001.
- B. Location - Solvents/EDC I Plant - At the point of discharge southeast of the Solvents/EDC I Plant control room (Building 1617) in Block 16, prior to mixing with other waters in CWR Canal D at Latitude 30°18'57", Longitude 91°14'03".
- C. Treatment - treatment of process wastewaters consists of:
  - steam stripping
  - neutralization
- D. Flow - Continuous Flow, 8.45 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations – OCPSF Subparts F, G and J - See Appendix A for calculations.

Internal Outfall 401 (previously named Internal Outfall 115 in the May 2006 Application)

- A. Type of wastewater - Internal Outfall 401 (115) on CWR Canal E discharge consists of cooling water returns, fire deluge water, utility wastewater, carbon bed backwash, non-process area stormwater, discharges from Internal Outfalls 421 (911) and 411 (301), and discharges from Power III. This internal outfall discharges to CWR Canal A and then to Outfall 001.
- B. Location - At the point of discharge from the southern end of CWR Canal E, prior to mixing with other waters in CWR Canal A at Latitude 30°18'58", Longitude 91°14'18".
- C. Treatment - treatment of process wastewaters consists of:
  - neutralization

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- D. Flow - Continuous Flow, 143.7 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitation -
  - TOC 50 mg/l (Daily Maximum)
  - Oil and Grease 15 mg/l (Daily Maximum)
- G. Basis - BPJ

Internal Outfall 411 (previously Internal Outfall 301)

- A. Type of wastewater - This internal outfall is a virtual outfall consisting of the discharge of inorganic process wastewater, process area stormwater, once through cooling water, and utility wastewater from the Chlorine Plant and the discharge of inorganic process wastewater, process area stormwater, non-process area stormwater, and utility wastewater from the Caustic Plant. This internal outfall discharges to CWR Canal E, through Internal Outfall 401 (115), and then to Outfall 001.
- B. Location - The virtual internal outfall coordinates are Latitude 30°19'06", Longitude 91°14'09".  
 Chlorine Plant - Internal Outfall consists of three components: one at the point of discharge from the 48-inch concrete trench on the east side of CWR Canal E in Block 26 and two upstream in the concrete trench for TSS sampling locations (OFT-10 and OFT-CSS). All three are prior to mixing with other waters in CWR Canal E.  
 Caustic Plant - Located at point of discharge from the 36-inch flume located on the south side of the caustic block, prior to mixing with other waters in CWR Canal E.
- C. Treatment - treatment of process wastewaters consists of:  
 - neutralization
- D. Flow - Continuous Flow, 20.1 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations - Inorganic Chemicals, Subpart F - See Appendix A for calculations.

Internal Outfall 421 (previously Internal Outfall 911)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, once through cooling water, and utility wastewater from the Polyethylene B Plant. This internal outfall discharges to CWR Canal E, through Internal Outfall 401 (115), and then to Outfall 001.
- B. Location - Polyethylene B Plant - At the point of discharge from 421A (911A) located at the southwest corner of the Polyethylene B Plant, at the corner of North Canal Road and the railroad track in Block 9, prior to mixing with other waters in CWR Canal E at Latitude 30°19'09", Longitude 91°13'44".
- C. Treatment - treatment of process wastewaters consists of:  
 - over/underflow weir (oil removal)
- D. Flow - Continuous Flow, 2.55 MGD

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- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations – OCPSF Subparts D and J - See Appendix A for calculations.

Internal Outfall 501 (previously named Internal Outfall 116 in the May 2006 Application)

- A. Type of wastewater - Internal Outfall 501 (116) on CWR Canal A upstream of CWR of Canal E discharge consists of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, post first-flush OCPSF storm water, discharges from Internal Outfalls 541 (1531), 521 (1521), 531 (1561), 511 (2501), and 601 (117), and discharges from embedded company (INEOS). This internal outfall discharges to CWR Canal A and then to Outfall 001.
- B. Location - At the point of discharge from the southwestern end of CWR Canal A prior to mixing with other waters in CWR Canal E at Latitude 30°18'58", Longitude 91°14'21".
- C. Treatment - treatment of process wastewaters consists of:
  - neutralization
- D. Flow - Continuous Flow, 283.3 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations -
 

TOC	50 mg/l (Daily Maximum)
Oil and Grease	15 mg/L (Daily Maximum)
Benzene	134 ug/l (Daily Maximum)
Ethylbenzene	380 ug/l (Daily Maximum)
Methyl Chloride	295 ug/l (Daily Maximum)
Toluene	74 ug/l (Daily Maximum)
- G. Basis – BPJ

Internal Outfall 511 (previously Internal Outfall 2501)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area storm water, utility wastewater, and non-process area stormwater from the Vector SBC Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Vector Styrene, Butadiene, Copolymer (SBC) Plant – At the point of discharge from the weir in the concrete ditch at the northwest corner of the Vector SBC Plant in Block 43, prior to mixing with other waters in CWR Canal A at Latitude 30°19'00", Longitude 91°14'31".
- C. Treatment - treatment of process wastewaters consists of:
  - over/underflow weir (oil removal)
  - pellet traps
- D. Flow - Intermittent Flow, 0.425 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

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G. Permit Limitations – OCPSF Subparts D and J

Internal Outfall 521 (previously Internal Outfall 1521)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area storm water, non-process area storm water, once through cooling water, and utility wastewater from the Chlorinated Methanes Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Chlorinated Methanes Plant - At the point of discharge from the North side of the sump outfall weir on the southwest side of Chlorinated Methanes Plant in Block 46, prior to mixing with other waters in CWR Canal A at Latitude 30°19'12", Longitude 91°14'28".
- C. Treatment - treatment of process wastewaters consists of:  
- air stripper (as needed)
- D. Flow - Intermittent Flow, 1.30 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- H. Permit Limitations – OCPSF Subparts G and J

Internal Outfall 531 (previously Internal Outfall 1561)

- A. Type of wastewater - This internal outfall consists of the discharge of non-categorical process wastewater (thermal treatment unit) from the Chlorinated Methanes Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Chlorinated Methanes Plant - At the point of discharge from the Chlorinated Methanes Plant thermal treatment unit (TTU), at the discharge piping sample point on the west side of the shot pond in Block 46, prior to mixing with other waters in CWR Canal A at Latitude 30°19'10", Longitude 91°14'24".
- C. Treatment - treatment of process wastewaters consists of:  
- neutralization
- D. Flow - Continuous Flow, 0.334 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitation –  
TOC 50 mg/l (Daily Maximum)  
Oil and Grease 15 mg/L (Daily Maximum)
- G. Basis – BPJ

Internal Outfall 541 (previously Internal Outfall 1531)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater from the Chlorinated Methanes Plant. This internal outfall discharges to CWR Canal A, through Internal Outfall 501 (116), and then to Outfall 001.



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- B. Location - Chlorinated Methanes Plant - At the point of the discharge piping sample point from the steam column, on the southwest side of Chlorinated Methanes Plant in Block 46, prior to mixing with other waters in CWR Canal A at Latitude 30°19'14", Longitude 91°14'26".
- C. Treatment - treatment of process wastewaters consists of:  
- steam stripper
- D. Flow - Continuous Flow, 0.077 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations - OCPSF Subparts G and J - See Appendix A for calculations.

Internal Outfall 551 (previously Internal Outfall 741)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, once-through cooling water, and utility wastewater from the LHC II Plant. This internal outfall discharges to CWR Canal F, through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Light Hydrocarbons #2 (LHC II) Plant - At the point of discharge from the LHC II Plant on the western side of Block 48, prior to mixing with other waters in CWR Canal F at Latitude 30°19'27", Longitude 91°14'15".
- C. Treatment - treatment of process wastewaters consists of:  
- over/underflow weir (oil removal)
- D. Flow - Intermittent Flow, 0.879 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations - OCPSF Subparts F and J

Internal Outfall 601 (previously named Internal Outfall 117 in the May 2006 Application)

- A. Type of wastewater - Internal Outfall 601 (117) on CWR Canal G discharge consists of cooling water returns, fire deluge water, utility wastewater, non-process area stormwater, and discharges from Internal Outfalls 631 (2001), 641 (3121), 621 (2241), 611 (1711), 651 (3001), and 551 (741), and discharges from embedded companies Air Products and Air Liquide. This internal outfall discharges to CWR Canal F, through Internal Outfall 501 (116) and then to Outfall 001.
- B. Location - At the point of discharge from the southern end of CWR Canal G, prior to mixing with other waters in CWR Canal F at Latitude 30°19'25", Longitude 91°14'22".
- C. Treatment - treatment of process wastewaters consists of:  
- neutralization
- D. Flow - Continuous Flow, 25.9 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001

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- F. Permit Limitation -
  - TOC 50 mg/l (Daily Maximum)
  - Oil and Grease 15 mg/L (Daily Maximum)

- G. Basis – BPJ

Internal Outfall 611 (previously Internal Outfall 1711)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, once through cooling water, and utility wastewater from the Vinyl II Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Vinyl II Plant – At the point of discharge from the ditch at the northeast corner of the Vinyl II Plant in Block 66, prior to mixing with other waters in CWR Canal G at Latitude 30°19'26", Longitude 91°14'30".
- C. Treatment - treatment of process wastewaters consists of:
  - steam stripper
  - neutralization
- D. Flow - Continuous Flow, 4.16 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations – OCPSF Subparts F and J - See Appendix A for calculations.

Internal Outfall 621 (previously Internal Outfall 2241)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, and utility wastewater from Light Hydrocarbons III Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Light Hydrocarbons III (LHC III) Plant – At the point of discharge from the central sump located at the southeast corner of the LHC III Plant in Block 68, prior to mixing with other waters in CWR Canal G at Latitude 30°19'30", Longitude 91°14'28".
- C. Treatment - treatment of process wastewaters consists of:
  - none
- D. Flow - Intermittent Flow, 0.409 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations – OCPSF Subparts F and J

Internal Outfall 631 (previously Internal Outfall 2001)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater (including wastewater from the INEOS facility), OCPSF process area stormwater, sanitary wastewater, utility wastewater, and OCPSF wastewater (landfill operations) from the Environmental Operations Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.

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- B. Location - Environmental Operations – At the point of discharge from the effluent ditch associated with the Environmental Operations in Block 80, prior to mixing with other waters in CWR Canal G at Latitude 30°19'53", Longitude 91°14'22".
- C. Treatment - treatment of process wastewaters consists of:
  - equalization
  - biological aeration
  - clarification
  - pH adjustment
  - sludge dewatering
- D. Flow - Continuous Flow, 17.9 MGD (Phase I) and 17.6 MGD (Phase II)
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations – OCPSF Subparts D, F, G, H and I - See Appendix A for calculations.

Internal Outfall 641 (previously Internal Outfall 3121)

- A. Type of wastewater - This internal outfall consists of the discharge of OCPSF process wastewater, OCPSF process area stormwater, and utility wastewater from the Polyethylene C Plant. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Polyethylene C Plant – At the point of discharge from the effluent weir at the pond located on the northern side of the Polyethylene C Plant in Block 86, prior to mixing with other waters in CWR Canal G at Latitude 30°19'38", Longitude 91°14'40".
- C. Treatment - treatment of process wastewaters consists of:
  - over/underflow weir (oil removal)
  - pellet traps
- D. Flow - Continuous Flow, 0.568 MGD
- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations – OCPSF Subparts D and J - See Appendix A for calculations.

Internal Outfall 651 (previously Internal Outfall 3001)

- A. Type of wastewater - This internal outfall consists of recovered groundwater from the Northwest Landfill. This internal outfall discharges to CWR Canal G, through Internal Outfall 601 (117), through Internal Outfall 501 (116), and then to Outfall 001.
- B. Location - Northwest Landfill – At the point of discharge from the pump at the Northwest Landfill on the northern side of the Polyethylene C Plant in Block 86 at the discharge piping, prior to mixing with other waters in CWR Canal G at Latitude 30°20'03", Longitude 91°15'02".
- C. Treatment - treatment of process wastewaters consists of:
  - carbon absorption
- D. Flow - Intermittent Flow, 0.047 MGD

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- E. Receiving waters - Mississippi River via Final Outfall 001
- F. Permit Limitations – Current Permit

#### Outfall 002

- A. Type of wastewater - This final outfall consists of the discharge from Tank Farm Block 110 to the Mississippi River. Discharge sources include secondary containment stormwater and utility wastewater.
- B. Location – Tank Farm Block 110 – At the point of discharge from the south end of the oil water separator in Tank Farm Block 110, prior to pumping the discharge over the levee and into the Mississippi River at Latitude 30°20'25", Longitude 91°14'30".
- C. Treatment - treatment of clarifier underflow wastewaters consists of:
  - over/underflow weir (oil removal)
- D. Flow – Intermittent Flow, 0.211 MGD
- E. Receiving waters - Mississippi River
- F. Permit Limitations – Current Permit

#### Storm Water Pollution Prevention Plan (SWP3) Requirements

In accordance with LAC 33:IX.2707.I.3 and 4 [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. **For first time permit issuance**, the Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. **For renewal permit issuance**, the Part II condition requires that the Storm Water Pollution Prevention Plan (SWP3) be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3.

Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14 [40 CFR 122.26(b)(14)].

#### C. WATER QUALITY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations and/or specific analytical results from the permittee's application were screened against state water quality numerical standard based limits by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. Calculations, results, and documentation are given in Appendix B.

In accordance with LAC 33:IX.2707.D.1/40 CFR § 122.44(d)(1), the existing (or potential) discharge (s) was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008, to determine whether pollutants would be discharged "at a level which will cause, have the

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reasonable potential to cause, or contribute to an excursion above any state water quality standard." Calculations, results, and documentation are given in Appendix B.

The following pollutants received water quality based effluent limits:

<b>PARAMETER(S)</b>
Hexachlorobenzene (Outfall 001)

Minimum quantification levels (MQLs) for state water quality numerical standards-based effluent limitations are set at the values listed in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. They are also listed in Part II of the permit.

#### **TMDL Waterbodies**

##### Outfalls 001 and 002

The discharges from Outfalls 001 and 002 which include treated process wastewater, non-contact cooling water, cooling tower blowdown, clarifier underflow, sanitary wastewater, and stormwater runoff flow into the Mississippi River, Subsegment No. 070301. The Mississippi River is not listed on the 2006 303(d) report for any impairments. Therefore, no additional requirements have been established for these outfalls.

#### **316(b) Requirements**

- July 6, 2004, EPA promulgated 'Phase II' regulations in accordance with section 316(b) of the Clean Water Act (CWA).
- January 25, 2007, the Second U.S. Circuit Court of Appeals remanded several provisions of the Phase II rule.
- March 20, 2007, EPA issued a memo saying, "the rule should be considered suspended".
- July 9, 2007, Federal Register notice suspending all parts of the Phase II regulations except 40 CFR 125.90(b) [LAC 33:IX.4731.B]

LAC 33:IX.4731.B provides for regulating the cooling water intake structure (CWIS) for existing facilities on a case-by-case basis using best professional judgment.

This facility was previously issued a number of NPDES permits and has been withdrawing once-through cooling water without any identified problems since 1958. LDEQ has no information which either identifies or verifies any past or current adverse environmental impacts associated with the withdrawal of the applicable cooling water. Based on information provided by the applicant dated April 18, 2008, the cooling water intake structure (CWIS) consists of six inlet bays and six intake pumps. The CWIS is situated immediately downstream of sheet piling installed in a "V" shape which surrounds the structure and protects it from floating debris by diverting the river flow to either side of the "V". The design capacity of the CWIS is 871 MGD (1,341 cfs) which is about 0.3% of the mean annual flow of the Mississippi River (465,000 cfs) in the vicinity of the intake. The CWIS is located approximately 300 feet offshore and about 11 feet above the stream bottom. The through-screen flow velocity is 0.4 ft/sec at average river level and 0.5 ft/sec at low river level. The CWIS has a bar screen with a screen opening size of 3.25 inches. The

intake water flows through the bar screen and is picked up in the pump suction lines and discharged over the levee to the cooling water supply canal for the facility. LDEQ has made the determination that this CWIS represents the best technology available. This determination is based on current information available and will be re-evaluated either upon promulgation of revised 316(b) Phase II regulations or upon evaluation of the environmental impacts of their CWIS as described below, whichever becomes available first. The revised 316(b) Phase II regulation will supersede any requirements contained in the applicable permit. In addition LDEQ will require an evaluation of the environmental impacts of applicable CWIS as stated in the individual permit and as described in the following paragraphs:

The permittee shall comply with effective regulations promulgated in accordance with section 316(b) of the CWA for cooling water intake structures. The permittee also must evaluate the environmental impacts of their CWIS by characterizing the fish/shellfish in the vicinity of the CWIS and assessing impingement mortality and entrainment and shall submit the assessment results to EPA and LDEQ no later than four (4) years from the effective date of this permit. Based on the information submitted to LDEQ, the permit may be reopened to incorporate limitations and/or requirements for the CWIS.

The fish/shellfish impingement mortality and entrainment assessment must include the following:

1. Source water physical data including a narrative description, scaled drawings, identification and characterization of the source water body's hydrological and geomorphological features, methods used to conduct any physical studies to determine your intake's area of influence within the water body and the results of such studies, location maps showing the physical configuration of the source water body, and other documentation which supports your assessment of the water body;
2. Cooling water intake structure data including a narrative description of the configuration, location, engineering drawings, and operation of your CWIS including design intake flow velocity, flow distribution, and water balance diagram that includes all sources of water to the facility, recirculating flows, and discharges;
3. Cooling water system data including a narrative description of the operation of your cooling water system, its relationship to the CWIS, the proportion of the design intake flow that is used in the system, the number of days of the year the cooling water system is in operation, and seasonal changes in the operation of the system, if applicable;
4. Source water biological evaluation which includes the fish/shellfish assessment and the impingement mortality/entrainment assessment; and
5. An assessment of the cooling water system which includes a discussion or description of how structural or operational actions currently in place reduce adverse environmental impacts caused by your CWIS, and a discussion of additional structural or operational actions, if any, that have been reviewed or evaluated as possible measures to further reduce environmental impacts caused by your CWIS.

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D. BIOMONITORING REQUIREMENTS

It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols. See Appendix D for the Biomonitoring Recommendation.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall(s) 001 are as follows:

<u>TOXICITY TESTS</u>	<u>FREQUENCY</u>
Acute static renewal 48-hour definitive toxicity test using <u>Daphnia pulex</u>	1/Quarter
Acute static renewal 48-hour definitive toxicity test using fathead minnow ( <u>Pimephales promelas</u> )	1/Quarter

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715/40 CFR Part 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. The full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105/40 CFR 124.5. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

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#### Dilution Series

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 8%, 11%, 14%, 19%, and 26%. The low-flow effluent concentration (critical biomonitoring dilution) is defined as 19% effluent.

#### E. MONITORING FREQUENCIES

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [LAC 33:IX.2715/40 CFR 122.48(b)] and to assure compliance with permit limitations [LAC 33:IX.2707.I./40 CFR 122.44(I)]. The following section(s) explain the rationale for the monitoring frequencies stated in the draft permit.

Monitoring frequency reductions were granted in accordance with the requirements stated in the USEPA Memorandum "Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies" per department discretion. See Appendix C for Monitoring frequency reductions.

#### Outfall 001

pH and flow - A monitoring frequency of "continuous monitoring" has been retained from the current permit.

Hexachlorobenzene - The monitoring frequency will be 1/week.

The reissued permit also requires monitoring and reporting of a number of groundwater constituents as requested by the permittee.

#### Internal Outfall 101 (previously named Internal Outfalls 112 in May 2006 Application)

Monitoring established at 1/Week for all parameters.

This internal outfall replaces Internal Outfalls 541, 1011, 2911, 2961, 2971, and 6201 from the current permit.



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Internal Outfall 111 (previously Internal Outfall 1081 in May 2006 Application)

**Monitoring Frequency Reduction for Internal Outfall 111**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	152	1/Month	2	1	1/Quarter
TSS	253	1/Month	16	6	1/Quarter
Chloroform	0.2	1/Year	0.564	282	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.
- Proposed Internal Outfall 111 (1081) replaces current Internal Outfalls 1031, 1041, 1051, 1061, and 1071. These internal outfalls will become sampling locations. However, the sum of the loading values represented above correspond to the sum of the mass limits for BOD<sub>5</sub> and TSS at Internal Outfalls 1031, 1041, and 1051 from the current permit.

Internal Outfall 121 (previously Internal Outfall 931)

**Monitoring Frequency Reduction for Internal Outfall 121**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	30	1/Month	7.67	25.6	1/Quarter
TSS	51	1/Month	14.4	28.2	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 201 (previously Internal Outfall 521)

**Monitoring Frequency Reduction for Internal Outfall 201**

Parameter	Current Permit		Long Term Average DMR (ug/l)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ug/l)	Monitoring Frequency			
1,2-Dichloroethane	574	1/day	60	10	1/week
Tetrachloroethylene	164	1/day	76	46	1/week

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Internal Outfall 301 (previously named Internal Outfalls 114 in May 2006 Application)

Monitoring established at 1/Week for all parameters.

This internal outfall replaces Internal Outfalls 411, 421, 431, 441, 451, 461, 481, 511, and 3331 from the current permit.

Internal Outfall 311 (previously Internal Outfall 531)

**Monitoring Frequency Reduction for Internal Outfall 311**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	456	1/Month	78.2	17.1	1/Quarter
TSS	767	1/Month	5779.3	753.5	1/Month
Carbon Tetrachloride	2.12	1/Week	0.75	35.2	2/Month
Chloroform	1.66	1/Week	1.48	88.9	1/Week
1,1 Dichloroethane	0.33	1/Week	0	0	1/Month
1,2 Dichloroethane	2.69	1/Week	0	0	1/Month
1,2 Dichloropropane	2.93	1/Week	0	0	1/Month
Tetrachloroethylene	0.78	1/Week	0.044	5.7	1/Month
Vinyl Chloride	1.45	1/Week	0.24	8.2	1/Month

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 401 (previously named Internal Outfalls 115 in May 2006 Application)

Monitoring established at 1/Week for all parameters.

This internal outfall replaces Internal Outfalls 111, 331, 351, 361, 371, 381, 751, 1311, 1321, 1901, 3101, 3351, and 3361 from the current permit.

Internal Outfall 411 (previously Internal Outfall 301)

The monitoring frequencies for all parameters have been set to 1/month for all parameters.

This internal outfall replaces Internal Outfalls 301 and 341 from the current permit.

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Internal Outfall 421 (previously Internal Outfall 911)

**Monitoring Frequency Reduction for Internal Outfall 421**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	199	1/Month	6.88	3	1/Quarter
TSS	331	1/Month	81.4	25	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 501 (previously named Internal Outfalls 116 in May 2006 Application)

Monitoring established at 1/Week for all parameters.

This internal outfall replaces Internal Outfalls 211, 251, 711, 811, 1411, 1551, 2511, 3911, 4031, 5811, and 5821 from the current permit.

Internal Outfall 511 (previously Internal Outfall 2501)

**Monitoring Frequency Reduction for Internal Outfall 511**

Parameter	Current Permit		Long Term Average DMR (mg/l)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (mg/l)	Monitoring Frequency			
BOD <sub>5</sub>	32	1/Month	3	9	1/Quarter
TSS	48	1/Month	8	20	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 521 (previously Internal Outfall 1521)

**Monitoring Frequency Reduction for Internal Outfall 521**

Parameter	Current Permit		Long Term Average DMR (mg/l)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (mg/l)	Monitoring Frequency			
BOD <sub>5</sub>	34	1/Month	5	15	1/Quarter
TSS	49	1/Month	21	43	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

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Internal Outfall 531 (previously Internal Outfall 1561)

Monitoring established at 1/Month for all parameters.

Internal Outfall 541 (previously Internal Outfall 1531)

**Monitoring Frequency Reduction for Internal Outfall 541**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	23	1/Month	0.536	2	1/Quarter
TSS	33	1/Month	0.449	1	1/Quarter
Chloroethane	0.07	1/Week	0.032	46	1/Month
Methyl Chloride	1.11	1/Week	0.0356	3	1/Month

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 551 (previously Internal Outfall 741)

**Monitoring Frequency Reduction for Internal Outfall 551**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	721	1/Week	17	2	2/Month
TSS	1063	1/Week	682	64	2/Month

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 601 (previously named Internal Outfalls 117 in May 2006 Application)

Monitoring established at 1/Week for all parameters.

This internal outfall replaces Internal Outfalls 1731, 2231, and 3131 from the current permit.

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Internal Outfall 611 (previously Internal Outfall 1711)

**Monitoring Frequency Reduction for Internal Outfall 611**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	914	1/Month	274	30	1/Quarter
TSS	999	1/Month	267	27	1/Quarter
Chloroform	2.06	1/Week	0.52	25	1/Month
1,2 Dichloroethane	3.35	1/Week	0.17	5	1/Month

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 621 (previously Internal Outfall 2241)

**Monitoring Frequency Reduction for Internal Outfall 621**

Parameter	Current Permit		Long Term Average DMR (mg/l)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (mg/l)	Monitoring Frequency			
BOD <sub>5</sub>	30	1/Month	2	7	1/Quarter
TSS	46	1/Month	18	39	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 631 (previously Internal Outfall 2001)

**Monitoring Frequency Reduction for Internal Outfall 631**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	5185	1/Day	2530	49	3/Week
TSS	7793	1/Day	4382	56	4/Week
Chloroform	3.42	2/Week	2	58	1/Week
1,2 Dichloroethane	11.07	2/Week	3.86	35	2/Month
1,2 Dichloropropane	24.92	2/Week	6.87	28	2/Month

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Parameter	Current Permit		Long Term Average DMR (ppd)	Parameter	Monthly Average (ppd)
	Monthly Average (ppd)	Monitoring Frequency			
1,3 Dichloropropylene	4.72	2/Week	2.61	55	1/Week
Methyl Chloride	14	2/Week	5.56	40	2/Month
Methylene Chloride	6.51	2/Week	0.02	0	1/Month

- All other parameters were below detection and set to a frequency of 1/year.
- This internal outfall replaces Internal Outfalls 231, 471, 491, and 2001 from the current permit.

Internal Outfall 641 (previously Internal Outfall 3121)

#### Monitoring Frequency Reduction for Internal Outfall 641

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	52	1/Month	5.5	10.6	1/Quarter
TSS	86	1/Month	23.7	27.5	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 651 (previously Internal Outfall 3001)

#### Monitoring Frequency Reduction for Internal Outfall 651

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
TOC	55	1/Month	12	22	1/Quarter

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### Outfall 002

#### Monitoring Frequency Reduction for Outfall 002

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
TOC	55	1/Month	6.5	12	1/Quarter

#### **X. Compliance History/DMR Review:**

- A. COMPLIANCE ORDER & NOTICE OF POTENTIAL PENALTY WE-CN-07-0596 was issued to this permittee on February 27, 2008, for permit and effluent violations.

ADMINISTRATIVE ORDER WE-AO-09-0130 was issued to this permittee on April 24, 2009. This compliance action allowed the permittee to implement upgrades related to Internal Outfalls 531 and 1041.

- B. A DMR review of the monitoring reports for the period of February 2008 through February 2009 revealed the following effluent violations:

Date	Parameter	Outfall	Sample Value	Permit Limit
05/09	BOD <sub>5</sub>	411A	183 mg/L	80 mg/L
03/08 - 02/09	Chloroform	1031Y	1.09 lbs/day	0.18 lbs/day
10/08	BOD <sub>5</sub>	1031A	709 lbs/day	311 lbs/day
09/08	Hexachlorobenzene	001A	20.96 lbs/day	2.82 lbs/day
08/08	Hexachlorobenzene	001A	7.78 lbs/day	2.82 lbs/day
06/08	Total Nickel	301A	204.7 lbs/day	93.1 lbs/day
06/08	TSS	231A	1889 mg/L	183 mg/L
03/08	TSS	231A	62 mg/L	183 mg/L
03/08	TSS	101A	1736 lbs/day	1663 lbs/day
03/07 - 02/08	Chloroform	1031Y	0.89 lbs/day	0.18 lbs/day

- C. The most recent inspection was performed on June 20, 2005. All areas evaluated were found to be satisfactory with the exception of the Effluent/Receiving Waters. Specifically, the permittee's records were reviewed for the period of June 2004 through May 2005 and the following items were noted: (1) The permittee had eight daily maximum and two monthly average effluent violations; (2) The permittee failed to collect compliance samples on two occasions; and (3) The permittee had four periods of no continuous monitoring of outfall flow.

#### **XI. "IT" Questions - Applicant's Responses**

IT Questions and Dow Chemical Corporation's responses can be found in their LPDES permit application dated May 2006.

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**XII. Endangered Species:**

Outfalls 001 and 002

The receiving waterbody, Subsegment No. 070301 of the Mississippi River Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid Sturgeon, which is listed as an endangered species. This draft permit has been submitted to the FWS for review in accordance with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and after consultation with FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse effect upon the Pallid Sturgeon. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

**XIII. Historic Sites:**

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

**XIV. Tentative Determination:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

**XV. Variances:**

No requests for variances have been received by this Office.

**XVI. Public Notices:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List



## Appendix A

Fact Sheet Appendix A  
Technology LimitationsLPDES Permit LA0003301  
Page 1**Internal Outfall 111 (1081)**Proposed BOD<sub>5</sub> and TSS Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average) 0.448 mgd  
**TOTAL OCPSF FLOW 0.448 mgd**

Concentration Factors from 40 CFR 414 Subpart D

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.448	64	24	239	90
TSS	0.448	130	40	486	149

Utility Wastewater Average Flow 0.014 mgd  
**TOTAL UTILITY AVERAGE FLOW 0.014 mgd**

Concentration Factors from LDEQ Discussion

Parameter	Utility Flow (mgd)	Concentration Factors		Proposed Utility Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.014	30	20	4	2
TSS	0.014	30	20	4	2

Once Through Cooling Water Average Flow 1.54 mgd  
**TOTAL OTCW AVERAGE FLOW 1.54 mgd**

Concentration Factors from LDEQ Discussion

Parameter	OTCW Flow (mgd)	Concentration Factors		Proposed Utility Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	1.54	10	5	128	64
TSS	1.54	10	5	128	64

Proposed Internal Outfall 111 (1081) Limits		
Parameter	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	371	156
TSS	618	215

\* Proposed Internal Outfall 111 (1081) replaces current Internal Outfalls 1031, 1041, 1051, 1061, and 1071. These internal outfalls will become sampling locations.

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## Proposed Organic Parameters Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly  
Average)

0.448 mgd

**TOTAL OCPSF FLOW****0.448 mgd**

Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Poly A Virtual Internal Outfall 111 (1081) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
<b>40 CFR 414 Subpart J</b>					
Acenaphthene	0.448	47	19	0.176	0.071
Acenaphthylene	0.448	47	19	0.176	0.071
Acrylonitrile	0.448	232	94	0.867	0.351
Anthracene	0.448	47	19	0.176	0.071
Benzene	0.448	134	57	0.501	0.213
Benzo(a)anthracene	0.448	47	19	0.176	0.071
3,4-Benzofluoranthene	0.448	48	20	0.179	0.075
Benzo(k)fluoranthene	0.448	47	19	0.176	0.071
Benzo(a)pyrene	0.448	48	20	0.179	0.075
Bis(2-ethylhexyl) phthalate	0.448	258	95	0.964	0.355
Carbon Tetrachloride	0.448	380	142	1.420	0.531
Chlorobenzene	0.448	380	142	1.420	0.531
Chloroethane	0.448	295	110	1.102	0.411
Chloroform	<b>LIMITS CALCULATED IN SEPARATE TABLE – SEE BELOW</b>				
Chrysene	0.448	47	19	0.176	0.071
Di-n-butyl phthalate	0.448	43	20	0.161	0.075
1,2-Dichlorobenzene	0.448	794	196	2.967	0.732
1,3-Dichlorobenzene	0.448	380	142	1.420	0.531
1,4-Dichlorobenzene	0.448	380	142	1.420	0.531
1,1-Dichloroethane	0.448	59	22	0.220	0.082
1,2-Dichloroethane	0.448	574	180	2.145	0.673
1,1-Dichloroethylene	0.448	60	22	0.224	0.082
1,2-trans-Dichloroethylene	0.448	66	25	0.247	0.093
1,2-Dichloropropane	0.448	794	196	2.967	0.732
1,3-Dichloropropylene	0.448	794	196	2.967	0.732
Diethyl phthalate	0.448	113	46	0.422	0.172
2,4-Dimethylphenol	0.448	47	19	0.176	0.071
Dimethyl phthalate	0.448	47	19	0.176	0.071
4,6-Dinitro-o-cresol	0.448	277	78	1.035	0.291
2,4-Dinitrophenol	0.448	4,291	1,207	16.033	4.510
Ethylbenzene	0.448	380	142	1.420	0.531
Fluoranthene	0.448	54	22	0.202	0.082
Fluorene	0.448	47	19	0.176	0.071

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Poly A Virtual Internal Outfall 111 (1081) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Hexachlorobenzene	0.448	794	196	2.967	0.732
Hexachlorobutadiene	0.448	380	142	1.420	0.531
Hexachloroethane	0.448	794	196	2.967	0.732
Methyl Chloride	0.448	295	110	1.102	0.411
Methylene Chloride	0.448	170	36	0.635	0.135
Naphthalene	0.448	47	19	0.176	0.071
Nitrobenzene	0.448	6,402	2,237	23.920	8.358
2-Nitrophenol	0.448	231	65	0.863	0.243
4-Nitrophenol	0.448	576	162	2.152	0.605
Phenanthrene	0.448	47	19	0.176	0.071
Phenol	0.448	47	19	0.176	0.071
Pyrene	0.448	48	20	0.179	0.075
Tetrachloroethylene	0.448	164	52	0.613	0.194
Toluene	0.448	74	28	0.276	0.105
1,2,4-Trichlorobenzene	0.448	794	196	2.967	0.732
1,1,1-Trichloroethane	0.448	59	22	0.220	0.082
1,1,2-Trichloroethane	0.448	127	32	0.475	0.120
Trichloroethylene	0.448	69	26	0.258	0.097
Vinyl Chloride	0.448	172	97	0.643	0.362

Proposed Chloroform Permit Limits (Based on BPJ)

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average)	0.448 mgd
Cooling Water Average Flow	1.54 mgd

Concentration factors from 40 CFR 414 Subpart J

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Chloroform	0.448	0.325	0.111	1.21	0.42

Concentration factors from 40 CFR 414 Subpart J

Parameter	OTCW Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Chloroform	1.54	0.325	0.111	4.17	1.43

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Proposed Internal Outfall 111 (1081) Limits		
Parameter	Daily Maximum (ppd)	Monthly Average (ppd)
Chloroform	5.38	1.85

**Internal Outfall 121 (931)**Proposed BOD<sub>5</sub> and TSS Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average) 0.182 mgd  
**TOTAL OCPSF FLOW 0.182 mgd**

Concentration Factors from 40 CFR 414 Subpart D

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed Permit Limits	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.182	64	24	97	36
TSS	0.182	130	40	197	61

Utility Wastewater Flow 0.161 mgd  
**TOTAL UTILITY AVERAGE FLOW 0.161 mgd**

Concentration Factors from LDEQ Discussion

Parameter	Utility Flow (mgd)	Concentration Factors		Proposed Non-OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.161	30	20	40	27
TSS	0.161	30	20	40	27

Proposed Internal Outfall 121 (931) Limits		
Parameter	Monthly Average (ppd)	Daily Maximum (ppd)
BOD <sub>5</sub>	63	137
TSS	88	237

Proposed Organic Parameters Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average) 0.182 mgd  
**TOTAL OCPSF FLOW 0.182 mgd**

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 121 (931) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
<b>40 CFR 414 Subpart J</b>					
Acenaphthene	0.182	47	19	0.071	0.029
Acenaphthylene	0.182	47	19	0.071	0.029
Acrylonitrile	0.182	232	94	0.352	0.143
Anthracene	0.182	47	19	0.071	0.029
Benzene	0.182	134	57	0.203	0.087
Benzo(a)anthracene	0.182	47	19	0.071	0.029
3,4-Benzofluoranthene	0.182	48	20	0.073	0.030
Benzo(k)fluoranthene	0.182	47	19	0.071	0.029
Benzo(a)pyrene	0.182	48	20	0.073	0.030
Bis(2-ethylhexyl) phthalate	0.182	258	95	0.392	0.144
Carbon Tetrachloride	0.182	380	142	0.577	0.216
Chlorobenzene	0.182	380	142	0.577	0.216
Chloroethane	0.182	295	110	0.448	0.167
Chloroform	0.182	325	111	0.493	0.168
Chrysene	0.182	47	19	0.071	0.029
Di-n-butyl phthalate	0.182	43	20	0.065	0.030
1,2-Dichlorobenzene	0.182	794	196	1.21	0.298
1,3-Dichlorobenzene	0.182	380	142	0.577	0.216
1,4-Dichlorobenzene	0.182	380	142	0.577	0.216
1,1-Dichloroethane	0.182	59	22	0.090	0.033
1,2-Dichloroethane	0.182	574	180	0.871	0.273
1,1-Dichloroethylene	0.182	60	22	0.091	0.033
1,2-trans-Dichloroethylene	0.182	66	25	0.100	0.038
1,2-Dichloropropane	0.182	794	196	1.21	0.298
1,3-Dichloropropylene	0.182	794	196	1.21	0.298
Diethyl phthalate	0.182	113	46	0.172	0.070
2,4-Dimethylphenol	0.182	47	19	0.071	0.029
Dimethyl phthalate	0.182	47	19	0.071	0.029
4,6-Dinitro-o-cresol	0.182	277	78	0.420	0.118
2,4-Dinitrophenol	0.182	4,291	1,207	6.51	1.83
Ethylbenzene	0.182	380	142	0.577	0.216
Fluoranthene	0.182	54	22	0.082	0.033
Fluorene	0.182	47	19	0.071	0.029
Hexachlorobenzene	0.182	794	196	1.21	0.298
Hexachlorobutadiene	0.182	380	142	0.577	0.216
Hexachloroethane	0.182	794	196	1.21	0.298
Methyl Chloride	0.182	295	110	0.448	0.167
Methylene Chloride	0.182	170	36	0.258	0.055
Naphthalene	0.182	47	19	0.071	0.029

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 121 (931) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Nitrobenzene	0.182	6,402	2,237	9.72	3.40
2-Nitrophenol	0.182	231	65	0.351	0.099
4-Nitrophenol	0.182	576	162	0.874	0.246
Phenanthrene	0.182	47	19	0.071	0.029
Phenol	0.182	47	19	0.071	0.029
Pyrene	0.182	48	20	0.073	0.030
Tetrachloroethylene	0.182	164	52	0.249	0.079
Toluene	0.182	74	28	0.112	0.043
1,2,4-Trichlorobenzene	0.182	794	196	1.21	0.298
1,1,1-Trichloroethane	0.182	59	22	0.090	0.033
1,1,2-Trichloroethane	0.182	127	32	0.193	0.049
Trichloroethylene	0.182	69	26	0.105	0.039
Vinyl Chloride	0.182	172	97	0.261	0.147

**Internal Outfall 311 (531) – Phase I**

Proposed BOD<sub>5</sub> and TSS Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average) 3.38 mgd  
**TOTAL OCPSF FLOW** 3.38 mgd

Concentration Factors from 40 CFR 414 Subpart F

Production Percentage from Subpart F 78%		Concentration Factors		Proposed OCPSF Allotment	
Parameter	OCPSF Process Flow (mgd)	Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	2.64	80	30	1,761	661
TSS	2.64	149	46	3,281	1,013

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## Concentration Factors from 40 CFR 414 Subpart G

Production Percentage from Subpart G		Concentration Factors		Proposed OCPSF Allotment	
	22%				
Parameter	OCPSF Process Flow (mgd)	Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.744	92	34	571	211
TSS	0.744	159	49	987	304

Non-Categorical Wastewater Flow 0.072 mgd

**TOTAL NON-OCPSF WW AVERAGE FLOW** 0.072 mgd

Parameter		Concentration Factors		Proposed Non- OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	Total Non-OCPSF WW Flow (mgd)	30	20	18	12
TSS	0.072	30	20	18	12

OTCW Average Flow 5.07 mgd

**TOTAL OTCW AVERAGE FLOW** 5.07 mgdConcentration Factors for BOD<sub>5</sub> based on LDEQ Discussion

Parameter		Concentration Factors		Proposed Non- OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	OTCW Flow (mgd)	10	5	423	211
	5.07				

Proposed Internal Outfall 311 (531) Limits - Phase I		
Parameter	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	2,773	1,095
TSS	4,286	1,329



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Page 8**Internal Outfall 311 (531) – Phase II**Proposed BOD<sub>5</sub> and TSS Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly  
Average) 3.38 mgd

**TOTAL OCPSF FLOW** 3.38 mgd

Concentration Factors from 40 CFR 414 Subpart G

Production Percentage from Subpart G		Concentration Factors		Proposed OCPSF Allotment	
	100%				
Parameter	OCPSF Process Flow (mgd)	Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	3.38	92	34	2,593	958
TSS	3.38	159	49	4,482	1,381

Non-Categorical Wastewater Flow 0.072 mgd

**TOTAL NON-OCPSF WW AVERAGE FLOW** 0.072 mgd

Parameter	Total Non-OCPSF WW Flow (mgd)	Concentration Factors		Proposed Non- OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.072	30	20	18	12
TSS	0.072	30	20	18	12

OTCW Average Flow 5.07 mgd

**TOTAL OTCW AVERAGE FLOW** 5.07 mgd

Concentration Factors for BOD<sub>5</sub> based on LDEQ Discussion

Parameter	OTCW Flow (mgd)	Concentration Factors		Proposed Non- OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	5.07	10	5	423	211

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Proposed Internal Outfall 311 (531) Limits - Phase II		
Parameter	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	3,034	1,181
TSS	4,500	1,393

Proposed Organic Parameters Permit Limits for Phases I and II

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly  
Average)

3.38 mgd

**TOTAL OCPSF FLOW**

**3.38 mgd**

Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 311 (531) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
<b>40 CFR 414.100 Subpart J</b>					
Acenaphthene	3.38	47	19	1.32	0.536
Acenaphthylene	3.38	47	19	1.32	0.536
Acrylonitrile	3.38	232	94	6.54	2.65
Anthracene	3.38	47	19	1.32	0.536
Benzene	3.38	134	57	3.78	1.61
Benzo(a)anthracene	3.38	47	19	1.32	0.536
3,4-Benzofluoranthene	3.38	48	20	1.35	0.564
Benzo(k)fluoranthene	3.38	47	19	1.32	0.536
Benzo(a)pyrene	3.38	48	20	1.35	0.564
Bis(2-ethylhexyl) phthalate	3.38	258	95	7.27	2.68
Carbon Tetrachloride	3.38	380	142	10.71	4.00
Chlorobenzene	3.38	380	142	10.71	4.00
Chloroethane	3.38	295	110	8.32	3.10
Chloroform	3.38	325	111	9.16	3.13
Chrysene	3.38	47	19	1.32	0.536
Di-n-butyl phthalate	3.38	43	20	1.21	0.564
1,2-Dichlorobenzene	3.38	794	196	22.38	5.53
1,3-Dichlorobenzene	3.38	380	142	10.71	4.00
1,4-Dichlorobenzene	3.38	380	142	10.71	4.00
1,1-Dichloroethane	3.38	59	22	1.66	0.620
1,2-Dichloroethane	3.38	574	180	16.18	5.07
1,1-Dichloroethylene	3.38	60	22	1.69	0.620
1,2-trans-Dichloroethylene	3.38	66	25	1.86	0.705
1,2-Dichloropropane	3.38	794	196	22.38	5.53

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 311 (531) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
1,3-Dichloropropylene	3.38	794	196	22.38	5.53
Diethyl phthalate	3.38	113	46	3.19	1.30
2,4-Dimethylphenol	3.38	47	19	1.32	0.536
Dimethyl phthalate	3.38	47	19	1.32	0.536
4,6-Dinitro-o-cresol	3.38	277	78	7.81	2.20
2,4-Dinitrophenol	3.38	4,291	1,207	120.96	34.02
Ethylbenzene	3.38	380	142	10.71	4.00
Fluoranthene	3.38	54	22	1.52	0.620
Fluorene	3.38	47	19	1.32	0.536
Hexachlorobenzene	3.38	794	196	22.38	5.53
Hexachlorobutadiene	3.38	380	142	10.71	4.003
Hexachloroethane	3.38	794	196	22.38	5.525
Methyl Chloride	3.38	295	110	8.32	3.10
Methylene Chloride	3.38	170	36	4.79	1.01
Naphthalene	3.38	47	19	1.32	0.536
Nitrobenzene	3.38	6,402	2,237	180.47	63.06
2-Nitrophenol	3.38	231	65	6.51	1.83
4-Nitrophenol	3.38	576	162	16.24	4.57
Phenanthrene	3.38	47	19	1.32	0.536
Phenol	3.38	47	19	1.32	0.536
Pyrene	3.38	48	20	1.35	0.564
Tetrachloroethylene	3.38	164	52	4.62	1.47
Toluene	3.38	74	28	2.09	0.789
1,2,4-Trichlorobenzene	3.38	794	196	22.38	5.53
1,1,1-Trichloroethane	3.38	59	22	1.66	0.620
1,1,2-Trichloroethane	3.38	127	32	3.58	0.902
Trichloroethylene	3.38	69	26	1.95	0.733
Vinyl Chloride	3.38	172	97	4.85	2.73

**Internal Outfall 411 (301 – Summation of Sampling Locations 321 AND 341)**

## CALCULATION OF TECHNOLOGY-BASED EFFLUENT LIMITATIONS

## CHLORINE PRODUCTION RATES

CHLOR-ALKALI  
Diaphragm CellCHLORINE  
PRODUCTION  
K LB/DAY  
7000

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Conventional Pollutant Guideline Factor 40 CFR 415.62(b)  
Nonconventional Pollutant Guideline Factor 40 CFR 415.63(b)  
Guideline Factor [GLF] = [Pound Pollutant per K lb/day Production]  
Chlorine Production [CLP] = (K lb/day)  
Mass (lb/day) = Production (K lb/day) \* GLF

CALCULATE CONVENTIONAL POLLUTANT MASS LIMITS (TSS)

Conventional Pollutant Guideline Factor 40 CFR 415.62(b)  
Nonconventional Pollutant Guideline Factor 40 CFR 415.63(b)

Parameter	CLP	DAILY AVG GLF	DAILY MAX GLF	DAILY AVG LB/DAY	DAILY MAX LB/DAY
TSS	7000	0.51	1.1	3570	7700
Total Residual Chlorine	7000	0.0079	0.013	55.3	91
Total Copper	7000	0.0049	0.012	34.3	84
Total Lead	7000	0.0024	0.0059	16.8	41.3
Total Nickel	7000	0.0037	0.0097	25.9	67.9

SUMMARIZE PERMIT LIMITS

	DAILY AVG LB/DAY	DAILY MAX LB/DAY
CONVENTIONAL TSS	3570	7700
NONCONVENTIONAL Chlorine (Total Residual)	55.3	91
METALS		
Copper (Total)	34.3	84
Lead (Total)	16.8	41.3
Nickel (Total)	25.9	67.9

**Internal Outfall 421 (911)**

Proposed BOD<sub>5</sub> and TSS Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average) 0.33 mgd  
Non-Contact Stormwater Average Flow (Maximum 30-Day Monthly Average) 0.05 mgd

Concentration Factors from 40 CFR 414 Subpart D

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed Permit Limits	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.33	64	24	176	66
TSS	0.33	130	40	358	110

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Parameter	Non-Contact Stormwater Flow (mgd)	Concentration Factors		Proposed Permit Limits	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.05	20	10	8	4
TSS	0.05	20	10	8	4

OTCW Average Flow 0.69 mgd  
**TOTAL OTCW AVERAGE FLOW 0.69 mgd**

Concentration Factors based on LDEQ Discussion

Parameter	Total OTCW Flow (mgd)	Concentration Factors		Proposed Non-OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.69	10	5	58	29

Proposed Internal Outfall 421 (911) Limits		
Parameter	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	242	99
TSS*	366	114

Proposed Organic Parameters Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average) 0.33 mgd  
**TOTAL OCPSF FLOW 0.33 mgd**

Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 421 (911) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
40 CFR 414 Subpart J					
Acenaphthene	0.33	47	19	0.129	0.052
Acenaphthylene	0.33	47	19	0.129	0.052
Acrylonitrile	0.33	232	94	0.64	0.26
Anthracene	0.33	47	19	0.129	0.052
Benzene	0.33	134	57	0.37	0.157

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 421 (911) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Benzo(a)anthracene	0.33	47	19	0.129	0.052
3,4-Benzofluoranthene	0.33	48	20	0.132	0.055
Benzo(k)fluoranthene	0.33	47	19	0.129	0.052
Benzo(a)pyrene	0.33	48	20	0.132	0.055
Bis(2-ethylhexyl) phthalate	0.33	258	95	0.71	0.26
Carbon Tetrachloride	0.33	380	142	1.05	0.39
Chlorobenzene	0.33	380	142	1.05	0.39
Chloroethane	0.33	295	110	0.81	0.30
Chloroform	LIMITS CALCULATED IN A SEPARATE TABLE – SEE BELOW				
Chrysene	0.33	47	19	0.129	0.052
Di-n-butyl phthalate	0.33	43	20	0.118	0.055
1,2-Dichlorobenzene	0.33	794	196	2.2	0.54
1,3-Dichlorobenzene	0.33	380	142	1.05	0.39
1,4-Dichlorobenzene	0.33	380	142	1.05	0.39
1,1-Dichloroethane	0.33	59	22	0.162	0.061
1,2-Dichloroethane	0.33	574	180	1.58	0.50
1,1-Dichloroethylene	0.33	60	22	0.165	0.061
1,2-trans-Dichloroethylene	0.33	66	25	0.18	0.069
1,2-Dichloropropane	0.33	794	196	2.2	0.54
1,3-Dichloropropylene	0.33	794	196	2.2	0.54
Diethyl phthalate	0.33	113	46	0.31	0.127
2,4-Dimethylphenol	0.33	47	19	0.129	0.052
Dimethyl phthalate	0.33	47	19	0.129	0.052
4,6-Dinitro-o-cresol	0.33	277	78	0.76	0.21
2,4-Dinitrophenol	0.33	4,291	1,207	11.8	3.3
Ethylbenzene	0.33	380	142	1.05	0.39
Fluoranthene	0.33	54	22	0.149	0.061
Fluorene	0.33	47	19	0.129	0.052
Hexachlorobenzene	0.33	794	196	2.2	0.54
Hexachlorobutadiene	0.33	380	142	1.05	0.39
Hexachloroethane	0.33	794	196	2.2	0.54
Methyl Chloride	0.33	295	110	0.81	0.30
Methylene Chloride	0.33	170	36	0.47	0.099
Naphthalene	0.33	47	19	0.129	0.052
Nitrobenzene	0.33	6,402	2,237	17.6	6.2
2-Nitrophenol	0.33	231	65	0.64	0.18
4-Nitrophenol	0.33	576	162	1.59	0.45
Phenanthrene	0.33	47	19	0.129	0.052
Phenol	0.33	47	19	0.129	0.052
Pyrene	0.33	48	20	0.132	0.055
Tetrachloroethylene	0.33	164	52	0.45	0.143

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 421 (911) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Toluene	0.33	74	28	0.20	0.077
1,2,4-Trichlorobenzene	0.33	794	196	2.2	0.54
1,1,1-Trichloroethane	0.33	59	22	0.162	0.061
1,1,2-Trichloroethane	0.33	127	32	0.35	0.088
Trichloroethylene	0.33	69	26	0.19	0.072
Vinyl Chloride	0.33	172	97	0.47	0.27

Proposed Chloroform Permit Limits (Based on BPJ)

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average)

0.33 mgd

Cooling Water Average Flow

0.69 mgd

Concentration factors from 40 CFR 414 Subpart J

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Chloroform	0.33	0.325	0.111	0.89	0.31

Concentration factors from 40 CFR 414 Subpart J

Parameter	OTCW Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Chloroform	0.69	0.325	0.111	1.87	0.64

Proposed Internal Outfall 421 (911) Limits		
Parameter	Daily Maximum (ppd)	Monthly Average (ppd)
Chloroform	2.76	0.95

**Internal Outfall 541 ( 1531)**Proposed BOD<sub>5</sub> and TSS Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average)

0.080 mgd

**TOTAL OCPSF FLOW****0.080 mgd**

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Concentration Factors from 40 CFR 414 Subpart G

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed Permit Limits	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.080	92	34	61	23
TSS	0.080	159	49	106	33

Proposed Organic Parameters Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average)

0.080 mgd

**TOTAL OCPSF FLOW**

**0.080 mgd**

Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 541 (1531) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
<b>40 CFR 414 Subpart J</b>					
Acenaphthene	0.080	47	19	0.031	0.013
Acenaphthylene	0.080	47	19	0.031	0.013
Acrylonitrile	0.080	232	94	0.155	0.063
Anthracene	0.080	47	19	0.031	0.013
Benzene	0.080	134	57	0.089	0.038
Benzo(a)anthracene	0.080	47	19	0.031	0.013
3,4-Benzofluoranthene	0.080	48	20	0.032	0.013
Benzo(k)fluoranthene	0.080	47	19	0.031	0.013
Benzo(a)pyrene	0.080	48	20	0.032	0.013
Bis(2-ethylhexyl) phthalate	0.080	258	95	0.172	0.063
Carbon Tetrachloride	0.080	380	142	0.254	0.095
Chlorobenzene	0.080	380	142	0.254	0.095
Chloroethane	0.080	295	110	0.197	0.073
Chloroform	0.080	325	111	0.217	0.074
Chrysene	0.080	47	19	0.031	0.013
Di-n-butyl phthalate	0.080	43	20	0.029	0.013
1,2-Dichlorobenzene	0.080	794	196	0.530	0.131
1,3-Dichlorobenzene	0.080	380	142	0.254	0.095
1,4-Dichlorobenzene	0.080	380	142	0.254	0.095
1,1-Dichloroethane	0.080	59	22	0.039	0.015
1,2-Dichloroethane	0.080	574	180	0.383	0.120
1,1-Dichloroethylene	0.080	60	22	0.040	0.015
1,2-trans-Dichloroethylene	0.080	66	25	0.044	0.017
1,2-Dichloropropane	0.080	794	196	0.530	0.131
1,3-Dichloropropylene	0.080	794	196	0.530	0.131



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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 541 (1531) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Diethyl phthalate	0.080	113	46	0.075	0.031
2,4-Dimethylphenol	0.080	47	19	0.031	0.013
Dimethyl phthalate	0.080	47	19	0.031	0.013
4,6-Dinitro-o-cresol	0.080	277	78	0.185	0.052
2,4-Dinitrophenol	0.080	4,291	1,207	2.86	0.805
Ethylbenzene	0.080	380	142	0.254	0.095
Fluoranthene	0.080	54	22	0.036	0.015
Fluorene	0.080	47	19	0.031	0.013
Hexachlorobenzene	0.080	794	196	0.530	0.131
Hexachlorobutadiene	0.080	380	142	0.254	0.095
Hexachloroethane	0.080	794	196	0.530	0.131
Methyl Chloride	FDF CALCULATION PROVIDED IN A SEPARATE TABLE – SEE BELOW				
Methylene Chloride	0.080	170	36	0.113	0.024
Naphthalene	0.080	47	19	0.031	0.013
Nitrobenzene	0.080	6,402	2,237	4.27	1.49
2-Nitrophenol	0.080	231	65	0.154	0.043
4-Nitrophenol	0.080	576	162	0.384	0.108
Phenanthrene	0.080	47	19	0.031	0.013
Phenol	0.080	47	19	0.031	0.013
Pyrene	0.080	48	20	0.032	0.013
Tetrachloroethylene	0.080	164	52	0.109	0.035
Toluene	0.080	74	28	0.049	0.019
1,2,4-Trichlorobenzene	0.080	794	196	0.530	0.131
1,1,1-Trichloroethane	0.080	59	22	0.039	0.015
1,1,2-Trichloroethane	0.080	127	32	0.085	0.021
Trichloroethylene	0.080	69	26	0.046	0.017
Vinyl Chloride	0.080	172	97	0.115	0.065

Proposed Methyl Chloride Permit Limits (Based on existing FDF)

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average)

0.080 mgd

FDF Variance

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed Permit Limits	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Methyl Chloride	0.080	4.04	1.66	2.695	1.108

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Page 17**Internal Outfall 611 (1711)**Proposed BOD<sub>5</sub> and TSS Permit LimitsOCPSF Wastewater Average Flow (Maximum 30-Day Monthly  
Average)

3.31 mgd

**TOTAL OCPSF FLOW****3.31 mgd**

Concentration Factors from 40 CFR 414 Subpart F

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	3.31	80	30	2,208	828
TSS	3.31	149	46	4,113	1,270

Utility Wastewater Flow 0.12 mgd

TTU Flow 0.73 mgd

**TOTAL NON-OCPSF AVERAGE FLOW****0.85 mgd**

Concentration Factors from LDEQ Discussion

Parameter	NON-OCPSF Flow (mgd)	Concentration Factors		Proposed Non-OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.850	30	20	213	142
TSS	0.850	30	20	213	142

Proposed Internal Outfall 611 (1711) Limits		
Parameter	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	2,421	970
TSS	4,326	1,412

Proposed Organic Parameters Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average)

3.31 mgd

**TOTAL OCPSF FLOW****3.31 mgd**

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 611 (1711) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
<b>40 CFR 414 Subpart J</b>					
Acenaphthene	3.31	47	19	1.30	0.525
Acenaphthylene	3.31	47	19	1.30	0.525
Acrylonitrile	3.31	232	94	6.41	2.60
Anthracene	3.31	47	19	1.30	0.525
Benzene	3.31	134	57	3.70	1.58
Benzo(a)anthracene	3.31	47	19	1.30	0.525
3,4-Benzofluoranthene	3.31	48	20	1.33	0.553
Benzo(k)fluoranthene	3.31	47	19	1.30	0.525
Benzo(a)pyrene	3.31	48	20	1.33	0.553
Bis(2-ethylhexyl) phthalate	3.31	258	95	7.13	2.63
Carbon Tetrachloride	3.31	380	142	10.5	3.92
Chlorobenzene	3.31	380	142	10.5	3.92
Chloroethane	3.31	295	110	8.15	3.04
Chloroform	3.31	325	111	8.98	3.07
Chrysene	3.31	47	19	1.30	0.525
Di-n-butyl phthalate	3.31	43	20	1.19	0.553
1,2-Dichlorobenzene	3.31	794	196	21.9	5.42
1,3-Dichlorobenzene	3.31	380	142	10.5	3.92
1,4-Dichlorobenzene	3.31	380	142	10.5	3.92
1,1-Dichloroethane	3.31	59	22	1.63	0.608
1,2-Dichloroethane	3.31	574	180	15.9	4.97
1,1-Dichloroethylene	3.31	60	22	1.66	0.608
1,2-trans-Dichloroethylene	3.31	66	25	1.82	0.691
1,2-Dichloropropane	3.31	794	196	21.9	5.42
1,3-Dichloropropylene	3.31	794	196	21.9	5.42
Diethyl phthalate	3.31	113	46	3.12	1.27
2,4-Dimethylphenol	3.31	47	19	1.30	0.525
Dimethyl phthalate	3.31	47	19	1.30	0.525
4,6-Dinitro-o-cresol	3.31	277	78	7.66	2.16
2,4-Dinitrophenol	3.31	4,291	1,207	119	33.4
Ethylbenzene	3.31	380	142	10.5	3.92
Fluoranthene	3.31	54	22	1.49	0.608
Fluorene	3.31	47	19	1.30	0.525
Hexachlorobenzene	3.31	794	196	21.9	5.42
Hexachlorobutadiene	3.31	380	142	10.5	3.92
Hexachloroethane	3.31	794	196	21.9	5.42
Methyl Chloride	3.31	295	110	8.15	3.04
Methylene Chloride	3.31	170	36	4.70	0.995
Naphthalene	3.31	47	19	1.30	0.525
Nitrobenzene	3.31	6,402	2,237	177	61.8
2-Nitrophenol	3.31	231	65	6.38	1.80
4-Nitrophenol	3.31	576	162	15.9	4.48
Phenanthrene	3.31	47	19	1.30	0.525
Phenol	3.31	47	19	1.30	0.525
Pyrene	3.31	48	20	1.33	0.553
Tetrachloroethylene	3.31	164	52	4.53	1.44

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 611 (1711) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Toluene	3.31	74	28	2.05	0.774
1,2,4-Trichlorobenzene	3.31	794	196	21.9	5.42
1,1,1-Trichloroethane	3.31	59	22	1.63	0.608
1,1,2-Trichloroethane	3.31	127	32	3.51	0.884
Trichloroethylene	3.31	69	26	1.91	0.719
Vinyl Chloride	3.31	172	97	4.754	2.68

**Internal Outfall 631 (2001) – Phase I**Proposed BOD<sub>5</sub> and TSS Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average)      **16.7** mgd  
**TOTAL OCPSF FLOW**      **16.7** mgd

Concentration Factors from 40 CFR 414 Subpart D

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.217	64	24	116	43.4
TSS	0.217	130	40	235	72.4

Concentration Factors from 40 CFR 414 Subpart F

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	13.99	80	30	9,334	3,500
TSS	13.99	149	46	17,385	5,367

Concentration Factors from 40 CFR 414 Subpart G

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	1.92	92	34	1,473	544
TSS	1.92	159	49	2,546	785

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## Concentration Factors from 40 CFR 414 Subpart H

Production Percentage from Subpart H	3.40%	Concentration Factors		Proposed OCPSF Allotment	
Parameter	OCPSF Process Flow (mgd)	Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.568	120	45	568	213
TSS	0.568	183	57	867	270

Proposed OCPSF Allotment		
Parameter	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	11,491	4,300
TSS	21,033	6,494

Utility Wastewater Average Flow 1.12 mgd  
**TOTAL UTILITY AVERAGE FLOW 1.12 mgd**

## Concentration Factors from LDEQ Discussion

Parameter	Utility Flow (mgd)	Concentration Factors		Proposed Utility Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	1.12	30	20	280	187
TSS	1.12	30	20	280	187

Sanitary Wastewater Average Flow 0.115 mgd  
**TOTAL SANITARY AVERAGE FLOW 0.115 mgd**

## Concentration Factors from LDEQ Discussion

Parameter	Sanitary Flow (mgd)	Concentration Factors		Proposed Utility Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.115	45	30	43.2	28.8
TSS	0.115	45	30	43.2	28.8

Total Requested BOD<sub>5</sub> and TSS Allocation

Parameter	Proposed Internal Outfall 631 (2001) Limits - Phase I	
	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	11,814	4,516
TSS	21,356	6,710

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## Proposed Organic Parameters and Metals Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly  
Average)

16.7 mgd

**TOTAL OCPSF FLOW****16.7 mgd**

Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Outfall 631 (2001) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
<b>40 CFR 414 Subpart I</b>					
Acenaphthene	16.7	59	22	8.22	3.06
Acenaphthylene	16.7	59	22	8.22	3.06
Acrylonitrile	16.7	242	96	33.7	13.4
Anthracene	16.7	59	22	8.22	3.06
Benzene	16.7	136	37	18.9	5.15
Benzo(a)anthracene	16.7	59	22	8.22	3.06
3,4-Benzofluoranthene	16.7	61	23	8.50	3.20
Benzo(k)fluoranthene	16.7	59	22	8.22	3.06
Benzo(a)pyrene	16.7	61	23	8.50	3.20
Bis(2-ethylhexyl) phthalate	16.7	279	103	38.9	14.3
Carbon Tetrachloride	16.7	38	18	5.29	2.51
Chlorobenzene	16.7	28	15	3.90	2.09
Chloroethane	16.7	268	104	37.3	14.5
Chloroform	16.7	46	21	6.41	2.92
2-Chlorophenol	16.7	98	31	13.6	4.32
Chrysene	16.7	59	22	8.22	3.06
Di-n-butyl phthalate	16.7	57	27	7.94	3.76
1,2-Dichlorobenzene	16.7	163	77	22.7	10.7
1,3-Dichlorobenzene	16.7	44	31	6.13	4.32
1,4-Dichlorobenzene	16.7	28	15	3.90	2.09
1,1-Dichloroethane	16.7	59	22	8.22	3.06
1,2-Dichloroethane	16.7	211	68	29.4	9.5
1,1-Dichloroethylene	16.7	25	16	3.48	2.23
1,2-trans-Dichloroethylene	16.7	54	21	7.52	2.92
2,4-Dichlorophenol	16.7	112	39	15.6	5.43
1,2-Dichloropropane	16.7	230	153	32.0	21.3
1,3-Dichloropropylene	16.7	44	29	6.13	4.04
Diethyl phthalate	16.7	203	81	28.3	11.3
2,4-Dimethylphenol	16.7	36	18	5.01	2.51
Dimethyl phthalate	16.7	47	19	6.55	2.65
4,6-Dinitro-o-cresol	16.7	277	78	38.6	10.9
2,4-Dinitrophenol	16.7	123	71	17.1	9.9
2,4-Dinitrotoluene	16.7	285	113	39.7	15.7
2,6-Dinitrotoluene	16.7	641	255	89	35.5
Ethylbenzene	16.7	108	32	15.0	4.46
Fluoranthene	16.7	68	25	9.5	3.48
Fluorene	16.7	59	22	8.22	3.06
Hexachlorobenzene	16.7	28	15	3.90	2.09
Hexachlorobutadiene	16.7	49	20	6.82	2.79
Hexachloroethane	16.7	54	21	7.52	2.92
Methyl Chloride	16.7	190	86	26.5	12.0

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Outfall 631 (2001) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
Methylene Chloride	16.7	89	40	12.4	5.57
Naphthalene	16.7	59	22	8.22	3.06
Nitrobenzene	16.7	68	27	9.5	3.76
2-Nitrophenol	16.7	69	41	9.6	5.71
4-Nitrophenol	16.7	124	72	17.3	10.0
Phenanthrene	16.7	59	22	8.22	3.06
Phenol	16.7	26	15	3.62	2.09
Pyrene	16.7	67	25	9.3	3.48
Tetrachloroethylene	16.7	56	22	7.80	3.06
Toluene	16.7	80	26	11.1	3.62
Total Copper	16.7	3,380	1,450	470.8	201.9
1,2,4-Trichlorobenzene	16.7	140	68	19.5	9.5
1,1,1-Trichloroethane	16.7	54	21	7.52	2.92
1,1,2-Trichloroethane	16.7	54	21	7.52	2.92
Trichloroethylene	16.7	54	21	7.52	2.92
Vinyl Chloride	16.7	268	104	37.3	14.5

**Internal Outfall 631 (2001) – Phase II**

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average) **16.4 mgd**  
**TOTAL OCPSF FLOW 16.4 mgd**

Concentration Factors from 40 CFR 414 Subpart D

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.279	64	24	149	55.8
TSS	0.279	130	40	303	93.1

Concentration Factors from 40 CFR 414 Subpart F

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	12.8	80	30	8,540	3,203
TSS	12.8	149	46	15,906	4,911

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## Concentration Factors from 40 CFR 414 Subpart G

Production Percentage from Subpart G	15.8%	Concentration Factors		Proposed OCPSF Allotment	
Parameter	OCPSF Process Flow (mgd)	Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	2.6	92	34	1,995	737
TSS	2.6	159	49	3,448	1,063

## Concentration Factors from 40 CFR 414 Subpart H

Production Percentage from Subpart H	4.70%	Concentration Factors		Proposed OCPSF Allotment	
Parameter	OCPSF Process Flow (mgd)	Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.772	120	45	773	290
TSS	0.772	183	57	1,178	367

Proposed OCPSF Allotment		
Parameter	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	11,457	4,286
TSS	20,835	6,434

Utility Wastewater Average Flow 1.12 mgd  
**TOTAL UTILITY AVERAGE FLOW 1.12 mgd**

## Concentration Factors from LDEQ Discussion

Parameter	Utility Flow (mgd)	Concentration Factors		Proposed Utility Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	1.12	30	20	280	187
TSS	1.12	30	20	280	187

Sanitary Wastewater Average Flow 0.115 mgd  
**TOTAL SANITARY AVERAGE FLOW 0.115 mgd**

## Concentration Factors from LDEQ Discussion

Parameter	Sanitary Flow (mgd)	Concentration Factors		Proposed Utility Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.115	45	30	43.2	28.8
TSS	0.115	45	30	43.2	28.8



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Total Requested BOD<sub>5</sub> and TSS Allocation

Parameter	Proposed Internal Outfall 631 (2001) Limits – Phase II	
	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	11,780	4,502
TSS	21,158	6,650

## Proposed Organic Parameters and Metals Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly  
Average)

16.4 mgd

TOTAL OCPSF FLOW

16.4 mgd

Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Outfall 631 (2001) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
<b>40 CFR 414 Subpart I</b>					
Acenaphthene	16.4	59	22	8.09	3.02
Acenaphthylene	16.4	59	22	8.09	3.02
Acrylonitrile	16.4	242	96	33.2	13.2
Anthracene	16.4	59	22	8.09	3.02
Benzene	16.4	136	37	18.6	5.07
Benzo(a)anthracene	16.4	59	22	8.09	3.02
3,4-Benzofluoranthene	16.4	61	23	8.36	3.15
Benzo(k)fluoranthene	16.4	59	22	8.09	3.02
Benzo(a)pyrene	16.4	61	23	8.36	3.15
Bis(2-ethylhexyl) phthalate	16.4	279	103	38.2	14.1
Carbon Tetrachloride	16.4	38	18	5.21	2.47
Chlorobenzene	16.4	28	15	3.84	2.06
Chloroethane	16.4	268	104	36.7	14.3
Chloroform	16.4	46	21	6.31	2.88
2-Chlorophenol	16.4	98	31	13.4	4.25
Chrysene	16.4	59	22	8.09	3.02
Di-n-butyl phthalate	16.4	57	27	7.81	3.70
1,2-Dichlorobenzene	16.4	163	77	22.3	10.6
1,3-Dichlorobenzene	16.4	44	31	6.03	4.25
1,4-Dichlorobenzene	16.4	28	15	3.84	2.06
1,1-Dichloroethane	16.4	59	22	8.09	3.02
1,2-Dichloroethane	16.4	211	68	28.9	9.3
1,1-Dichloroethylene	16.4	25	16	3.43	2.19
1,2-trans-Dichloroethylene	16.4	54	21	7.40	2.88
2,4-Dichlorophenol	16.4	112	39	15.4	5.35
1,2-Dichloropropane	16.4	230	153	31.5	21.0
1,3-Dichloropropylene	16.4	44	29	6.03	3.97
Diethyl phthalate	16.4	203	81	27.8	11.1
2,4-Dimethylphenol	16.4	36	18	4.93	2.47
Dimethyl phthalate	16.4	47	19	6.44	2.60

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Outfall 631 (2001) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
4,6-Dinitro-o-cresol	16.4	277	78	38.0	10.7
2,4-Dinitrophenol	16.4	123	71	16.9	9.7
2,4-Dinitrotoluene	16.4	285	113	39.1	15.5
2,6-Dinitrotoluene	16.4	641	255	88	35.0
Ethylbenzene	16.4	108	32	14.8	4.39
Fluoranthene	16.4	68	25	9.3	3.43
Fluorene	16.4	59	22	8.09	3.02
Hexachlorobenzene	16.4	28	15	3.84	2.06
Hexachlorobutadiene	16.4	49	20	6.72	2.74
Hexachloroethane	16.4	54	21	7.40	2.88
Methyl Chloride	16.4	190	86	26.0	11.8
Methylene Chloride	16.4	89	40	12.2	5.48
Naphthalene	16.4	59	22	8.09	3.02
Nitrobenzene	16.4	68	27	9.3	3.70
2-Nitrophenol	16.4	69	41	9.5	5.62
4-Nitrophenol	16.4	124	72	17.0	9.9
Phenanthrene	16.4	59	22	8.09	3.02
Phenol	16.4	26	15	3.56	2.06
Pyrene	16.4	67	25	9.2	3.43
Tetrachloroethylene	16.4	56	22	7.68	3.02
Toluene	16.4	80	26	11.0	3.56
Total Copper	16.4	3,380	1,450	462.3	198.3
1,2,4-Trichlorobenzene	16.4	140	68	19.2	9.3
1,1,1-Trichloroethane	16.4	54	21	7.40	2.88
1,1,2-Trichloroethane	16.4	54	21	7.40	2.88
Trichloroethylene	16.4	54	21	7.40	2.88
Vinyl Chloride	16.4	268	104	36.7	14.3

**Internal Outfall 641 (3121)**Proposed BOD<sub>5</sub> and TSS Permit Limits

OCPSF Wastewater Average Flow (Maximum 30-Day Monthly Average)

0.182 mgd  
**TOTAL OCPSF FLOW**      **0.182 mgd**

Concentration Factors from 40 CFR 414 Subpart D

Parameter	OCPSF Process Flow (mgd)	Concentration Factors		Proposed OCPSF Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.182	64	24	97	36
TSS	0.182	130	40	197	61

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Utility Wastewater Average Flow 0.388 mgd  
**TOTAL UTILITY AVERAGE FLOW 0.388 mgd**

## Concentration Factors from LDEQ Discussion

Parameter	Utility Flow (mgd)	Concentration Factors		Proposed Utility Allotment	
		Daily Maximum (mg/L)	Monthly Average (mg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	0.388	30	20	97	65
TSS	0.388	30	20	97	65

## Total Requested BOD and TSS Allocation

Parameter	Proposed Internal Outfall 641 (3121) Limits	
	Daily Maximum (ppd)	Monthly Average (ppd)
BOD <sub>5</sub>	194	101
TSS	294	126

## Proposed Organic Parameters Permit Limits

OCPSP Wastewater Average Flow (Maximum 30-Day Monthly Average)

0.182 mgd  
**TOTAL OCPSP FLOW 0.182 mgd**

Parameter	OCPSP Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 641 (3121) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
<b>40 CFR 414 Subpart J</b>					
Acenaphthene	0.182	47	19	0.071	0.029
Acenaphthylene	0.182	47	19	0.071	0.029
Acrylonitrile	0.182	232	94	0.352	0.142
Anthracene	0.182	47	19	0.071	0.029
Benzene	0.182	134	57	0.203	0.086
Benzo(a)anthracene	0.182	47	19	0.071	0.029
3,4-Benzofluoranthene	0.182	48	20	0.073	0.030
Benzo(k)fluoranthene	0.182	47	19	0.071	0.029
Benzo(a)pyrene	0.182	48	20	0.073	0.030
Bis(2-ethylhexyl) phthalate	0.182	258	95	0.391	0.144
Carbon Tetrachloride	0.182	380	142	0.576	0.215
Chlorobenzene	0.182	380	142	0.576	0.215
Chloroethane	0.182	295	110	0.447	0.167
Chloroform	0.182	325	111	0.493	0.168
Chrysene	0.182	47	19	0.071	0.029
Di-n-butyl phthalate	0.182	43	20	0.065	0.030
1,2-Dichlorobenzene	0.182	794	196	1.203	0.297
1,3-Dichlorobenzene	0.182	380	142	0.576	0.215

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Parameter	OCPSF Process Wastewater Flow (mgd)	Concentration Factors		Proposed Internal Outfall 641 (3121) Limits	
		Maximum for Any One Day (µg/L)	Maximum for any Monthly Average (µg/L)	Daily Maximum (ppd)	Monthly Average (ppd)
1,4-Dichlorobenzene	0.182	380	142	0.576	0.215
1,1-Dichloroethane	0.182	59	22	0.089	0.033
1,2-Dichloroethane	0.182	574	180	0.870	0.273
1,1-Dichloroethylene	0.182	60	22	0.091	0.033
1,2-trans-Dichloroethylene	0.182	66	25	0.100	0.038
1,2-Dichloropropane	0.182	794	196	1.203	0.297
1,3-Dichloropropylene	0.182	794	196	1.203	0.297
Diethyl phthalate	0.182	113	46	0.171	0.070
2,4-Dimethylphenol	0.182	47	19	0.071	0.029
Dimethyl phthalate	0.182	47	19	0.071	0.029
4,6-Dinitro-o-cresol	0.182	277	78	0.420	0.118
2,4-Dinitrophenol	0.182	4,291	1,207	6.503	1.829
Ethylbenzene	0.182	380	142	0.576	0.215
Fluoranthene	0.182	54	22	0.082	0.033
Fluorene	0.182	47	19	0.071	0.029
Hexachlorobenzene	0.182	794	196	1.203	0.297
Hexachlorobutadiene	0.182	380	142	0.576	0.215
Hexachloroethane	0.182	794	196	1.203	0.297
Methyl Chloride	0.182	295	110	0.447	0.167
Methylene Chloride	0.182	170	36	0.258	0.055
Naphthalene	0.182	47	19	0.071	0.029
Nitrobenzene	0.182	6,402	2,237	9.703	3.390
2-Nitrophenol	0.182	231	65	0.350	0.099
4-Nitrophenol	0.182	576	162	0.873	0.246
Phenanthrene	0.182	47	19	0.071	0.029
Phenol	0.182	47	19	0.071	0.029
Pyrene	0.182	48	20	0.073	0.030
Tetrachloroethylene	0.182	164	52	0.249	0.079
Toluene	0.182	74	28	0.112	0.042
1,2,4-Trichlorobenzene	0.182	794	196	1.203	0.297
1,1,1-Trichloroethane	0.182	59	22	0.089	0.033
1,1,2-Trichloroethane	0.182	127	32	0.192	0.048
Trichloroethylene	0.182	69	26	0.105	0.039
Vinyl Chloride	0.182	172	97	0.261	0.147

## Appendix B

wqsmoan.wk4 Date: 07/20 Appendix B-1  
 Developer: Bruce Fielding Time: 03:34 PM  
 Software: Lotus 4.0 LA0003301, A11409  
 Revision date: 3/11/89

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## Water Quality Screen for Dow Chemical

## Input variables:

Receiving Water Characteristics: Dilution:  
 ZID Fs = 0.033333  
 Receiving Water Name= Mississippi River  
 Critical flow (Qr) cfs= 141955 MZ Fs = 0.333333  
 Harm. mean/avg tidal cfs= 366748 Critical Qr (MGD)=91745.52  
 Drinking Water=1 HHNPCR=2 1 Harm. Mean (MGD)= 237029.2  
 MW=1, BW=2, 0=n ZID Dilution = 0.16333  
 Rec. Water Hardness= 153 MZ Dilution = 0.019148  
 Rec. Water TSS= 32 HHnc Dilution= 0.006465  
 Fisch/Specific=1, Stream=0 HHc Dilution= 0.002512  
 Diffuser Ratio= ZID Upstream = 5.122586  
 MZ Upstream = 51.22586

Effluent Characteristics:  
 Permittee= Dow Chemical  
 Permit Number= LA0003301, A11409  
 Facility flow (Qef),MGD= 597 MZhhc Upstream= 397.0339  
 ZID Hardness= ---  
 MZ Hardness= ---  
 ZID TSS= ---  
 MZ TSS= ---  
 Multipliers:  
 WLAa --> LTAA 0.32  
 WLAc --> LTAc 0.53  
 LTA a,c-->WQBL avg 1.31  
 LTA a,c-->WQBL max 3.11  
 LTA h --> WQBL max 2.38  
 WQBL-limit/report 2.13  
 WLA Fraction 1  
 WQBL Fraction 1  
 Outfall Number = 001  
 Eff. data, 2-lbs/day 2  
 MQL, 2-lbs/day 1  
 Effluent Hardness= N/A  
 Effluent TSS= N/A  
 WQBL ind. 0=y, 1=n  
 Acute/Chr. ratio 0=n, 1=y 1  
 Aquatic,acute only1=y,0=n

Page Numbering/Labeling  
 Appendix Appendix B-1  
 Page Numbers 1=y, 0=n 1  
 Input Page # 1=y, 0=n 1

Fischer/Site Specific inputs:  
 Pipe=1, Canal=2, Specific=3  
 Pipe width, feet  
 ZID plume dist., feet  
 MZ plume dist., feet  
 HHnc plume dist., feet  
 HHc plume dist., feet  
 Conversions:  
 ug/L-->lbs/day Qef=4.97898  
 ug/L-->lbs/day Qeo 0  
 ug/L-->lbs/day Qr 1183.905  
 lbs/day-->ug/L Qeo0.200844  
 lbs/day-->ug/L Qef0.200844  
 diss-->tot 1=y0=n 1  
 Cu diss-->tot1=y0=n 1  
 cfs-->MGD 0.6463

Fischer/site specific dilutions:  
 F/specific ZID Dilution = --- Receiving Stream:  
 F/specific MZ Dilution = --- Default Hardness= 25  
 F/specific HHnc Dilution= --- Default TSS= 10  
 F/specific HHc Dilution= --- 99 Crit., 1=y, 0=n 1  
 Old MQL=1, New=0 1

## Toxicity Dilution Series:

Biomonitoring dilution: 0.191476  
 Dilution Series Factor: 0.75

## Percent Effluent

Dilution No. 1 25.5304  
 Dilution No. 2 19.14764  
 Dilution No. 3 14.36074  
 Dilution No. 4 10.77054  
 Dilution No. 5 8.07794

## Partition Coefficients: Dissolved--&gt;Total

METALS	FW
Total Arsenic	2.223578
Total Cadmium	3.549121
Chromium III	5.282524
Chromium VI	1
Total Copper	3.56078
Total Lead	6.6
Total Mercury	2.785159
Total Nickel	3.174756
Total Zinc	4.535534

## Aquatic Life, Dissolved

## Metal Criteria, ug/L

METALS	ACUTE	CHRONIC
Arsenic	339.8	150
Cadmium	50.41446	1.411599
Chromium III	777.3694	252.1706
Chromium VI	15.712	10.582
Copper	27.50744	17.6668
Lead	102.28	3.985703
Mercury	1.734	0.012
Nickel	2028.29	225.2579
Zinc	164.0948	149.8435

## Site Specific Multiplier Values:

CV = ---  
 N = ---  
 WLAa --> LTAA ---  
 WLAc --> LTAc ---  
 LTA a,c-->WQBL avg ---  
 LTA a,c-->WQBL max ---  
 LTA h --> WQBL max ---

## Appendix B-1

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Dow Chemical

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(*1) Toxic Parameters	(*2) Instream Conc. ug/L	(*3) Effluent /Tech (Avg) lbs/day	(*4) Effluent /Tech (Max) lbs/day	(*5) MOE 1=No 0=95 % ug/L	(*6) Effluent 95th % estimate Non-Tech lbs/day	(*7)	(*8) Acute FW ug/L	(*9) Chronic FW ug/L	(*10) Numerical Criteria HHDW ug/L	(*11) HH Carcinogen Indicator "C"
NONCONVENTIONAL										
Total Phenols (AAP)				5			700	350	5	
3-Chlorophenol				10					0.1	
4-Chlorophenol				10			383	192	0.1	
2,3-Dichlorophenol				10					0.04	
2,5-Dichlorophenol				10					0.5	
2,6-Dichlorophenol				10					0.2	
3,4-Dichlorophenol				10					0.3	
2,4-Dichlorophenoxy- acetic acid (2,4-D)				---					100	
2-(2,4,5-Trichlorophen- oxy) propionic acid (2,4,5-TP, Silvex)				---					10	
METALS AND CYANIDE										
Total Arsenic				10			755.5719	333.5367	111.1789	
Total Cadmium				1			178.927	5.009936	35.49121	
Chromium III				10			4106.472	1332.097	264.1262	
Chromium VI				10			15.712	10.582	50	C
Total Copper		47	115	10	1		97.94796	62.9076	3560.78	
Total Lead		23	57	5	1		675.0477	26.30564	330	
Total Mercury				0.2			4.829466	0.033422	5.570319	
Total Nickel		36	93	40	1		6439.327	715.1389		
Total Zinc				20			744.2576	679.6201	22677.67	
Total Cyanide				20			45.9	5.4	563.8	
DIOXIN										
2,3,7,8 TCDD; dioxin				0.00001					7.1E-007	C
VOLATILE COMPOUNDS										
Benzene		15	44	10	1		2249	1125	1.1	C
Bromoform				10			2930	1465	3.9	C
Bromodichloromethane				10					0.2	C
Carbon Tetrachloride		26	68	10	1		2730	1365	0.22	C
Chloroform		22	61	10	1		2890	1445	5.3	C
Dibromochloromethane				10					0.39	C
1,2-Dichloroethane		41	129	10	1		11800	5900	0.36	C
1,1-Dichloroethylene		6	14	10	1		1160	580	0.05	C
1,3-Dichloropropylene		37	137	10	1		606	303	9.86	
Ethylbenzene		29	80	10	1		3200	1600	2390	
Methyl Chloride		286	693	50	1		55000	27500		
Methylene Chloride		12	42	20	1		19300	9650	4.4	C
1,1,2,2-Tetrachloro- ethane				10			932	466	0.16	C

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Dow Chemical  
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(*1)	(*12)	(*13)	(*14)	(*15)	(*16)	(*17)	(*18)	(*19)	(*20)	(*21)	(*22)	(*23)
Toxic	WLAa	WLAc	WLAh	LTAA	LTAc	LTAh	Limiting	WQBL	WQBL	WQBL	WQBL	Need
Parameters	Acute	Chronic	HHDW	Acute	Chronic	HHDW	A,C,HH	Avg	Max	Avg	Max	WQBL?
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	lbs/day	lbs/day	
NONCONVENTIONAL												
Total Phenols (4AAP)	4285.81	18279.05	773.3879	1371.459	9687.897	773.3879	773.3879	773.3879	1840.663	3850.683	9164.625	no
3-Chlorophenol	---	---	15.46776	---	---	15.46776	15.46776	15.46776	36.81326	77.01366	183.2925	no
4-Chlorophenol	2344.95	10027.37	15.46776	750.3841	5314.504	15.46776	15.46776	15.46776	36.81326	77.01366	183.2925	no
2,3-Dichlorophenol	---	---	6.187103	---	---	6.187103	6.187103	6.187103	14.72531	30.80546	73.317	no
2,5-Dichlorophenol	---	---	77.33879	---	---	77.33879	77.33879	77.33879	184.0663	385.0683	916.4625	no
2,6-Dichlorophenol	---	---	30.93552	---	---	30.93552	30.93552	30.93552	73.62653	154.0273	366.585	no
3,4-Dichlorophenol	---	---	46.40327	---	---	46.40327	46.40327	46.40327	110.4398	231.041	549.8775	no
2,4-Dichlorophenoxy-												
acetic acid (2,4-D)	---	---	15467.76	---	---	15467.76	15467.76	15467.76	36813.26	77013.66	183292.5	no
2-(2,4,5-Trichlorophen-												
oxy) propionic acid												
(2,4,5-TP, Silvex)	---	---	1546.776	---	---	1546.776	1546.776	1546.776	3681.326	7701.366	18329.25	no
METALS AND CYANIDE												
Total Arsenic	4626.054	17419.24	17196.88	1480.337	9232.199	17196.88	1480.337	1939.242	4603.849	9655.446	22922.47	no
Total Cadmium	1095.496	261.6482	5489.695	350.5588	138.6735	5489.695	138.6735	181.6623	431.2747	904.4932	2147.308	no
Chromium III	25142.23	69569.92	40854.4	8045.513	36872.06	40854.4	8045.513	10539.62	25021.55	52476.57	124581.8	no
Chromium VI	96.19807	552.6541	19901.69	30.78338	292.9067	19901.69	30.78338	40.32623	95.73632	200.7835	476.6692	no
Total Copper	599.6948	3285.403	550772.9	191.9023	1741.264	550772.9	191.9023	251.3921	596.8163	1251.676	2971.536	no
Total Lead	4133.038	1373.835	51043.6	1322.572	728.1324	51043.6	728.1324	953.8534	2264.492	4749.217	11274.86	no
Total Mercury	29.56882	1.745488	861.6034	9.462024	0.925109	861.6034	0.925109	1.211892	2.877088	6.033988	14.32496	no
Total Nickel	39425.33	37348.75	---	12616.11	19794.83	---	12616.11	16527.1	39236.09	82288.1	195355.7	no
Total Zinc	4556.701	35493.74	3507727	1458.17	18811.68	3507727	1458.17	1910.203	4534.909	9510.861	22579.22	no
Total Cyanide	281.0267	282.0196	102675	89.92854	149.4704	102675	89.92854	117.8064	279.6778	586.5557	1392.51	no
DIOXIN												
2,3,7,8 TCDD; dioxin	---	---	0.000283	---	---	0.000283	0.000283	0.000283	0.000673	0.001407	0.003349	no
VOLATILE COMPOUNDS												
Benzene	13769.7	58754.09	437.8373	4406.303	31139.67	437.8373	437.8373	437.8373	1042.053	2179.983	5188.36	no
Bromoform	17939.18	76510.89	1552.332	5740.537	40550.77	1552.332	1552.332	1552.332	3694.551	7729.031	18395.09	no
Bromodichloromethane	---	---	79.60678	---	---	79.60678	79.60678	79.60678	189.4641	396.3606	943.3381	no
Carbon Tetrachloride	16714.66	71288.3	87.56746	5348.691	37782.8	87.56746	87.56746	87.56746	208.4105	435.9966	1037.672	no
Chloroform	17694.27	75466.37	2109.58	5662.168	39997.18	2109.58	2109.58	2109.58	5020.799	10503.55	24998.46	no
Dibromochloromethane	---	---	155.2332	---	---	155.2332	155.2332	155.2332	369.4551	772.9031	1839.509	no
1,2-Dichloroethane	72246.52	308132.6	143.2922	23118.88	163310.3	143.2922	143.2922	143.2922	341.0354	713.449	1698.009	no
1,1-Dichloroethylene	7102.2	30291	19.90169	2272.704	16054.23	19.90169	19.90169	19.90169	47.36603	99.09014	235.8345	no
1,3-Dichloropropylene	3710.287	15824.44	1525.121	1187.292	8386.951	1525.121	1187.292	1555.352	3692.478	7744.068	18384.77	no
Ethylbenzene	19592.28	83561.38	369679.4	6269.528	44287.53	369679.4	6269.528	8213.082	19498.23	40892.77	97081.31	no
Methyl Chloride	336742.2	1436211	---	107757.5	761191.9	---	107757.5	141162.3	335125.9	702844.5	1668585	no
Methylene Chloride	118165.9	503979.6	1751.349	37813.09	267109.2	1751.349	1751.349	1751.349	4168.211	8719.932	20753.44	no
1,1,2,2-Tetrachloro-												
ethane	5706.25	24337.25	63.68542	1826	12898.74	63.68542	63.68542	63.68542	151.5713	317.0884	754.6705	no



[illegible]



## APPENDIX B-2 LA0003301, AI No. 1409

Documentation and Explanation of Water Quality Screen  
and Associated Lotus Spreadsheet

Each reference column is marked by a set of parentheses enclosing a number and asterisk, for example (\*1) or (\*19). These columns represent inputs, existing data sets, calculation points, and results for determining Water Quality Based Limits for an effluent of concern. The following represents a summary of information used in calculating the water quality screen:

## Receiving Water Characteristics:

Receiving Water: Mississippi River  
Critical Flow, Qrc (cfs): 141,955  
Harmonic Mean Flow, Qrh (cfs): 366,748  
Segment No.: 070301  
Receiving Stream Hardness (mg/L): 153  
Receiving Stream TSS (mg/L): 32  
MZ Stream Factor, Fs: 1/3  
Plume distance, Pf: N/A

## Effluent Characteristics:

Company: Dow Chemical Company  
Facility flow, Qe (MGD): 597  
Effluent Hardness: N/A  
Effluent TSS: N/A  
Pipe/canal width, Pw: N/A  
Permit Number: LA0003301

## Variable Definition:

Qrc, critical flow of receiving stream, cfs  
Qrh, harmonic mean flow of the receiving stream, cfs  
Pf = Allowable plume distance in feet, specified in LAC 33.IX.1115.D  
Pw = Pipe width or canal width in feet  
Qe, total facility flow, MGD  
Fs, stream factor from LAC.IX.33.11 (1 for harmonic mean flow)  
Cu, ambient concentration, ug/L  
Cr, numerical criteria from LAC.IX.1113, Table 1  
WLA, wasteload allocation  
LTA, long term average calculations  
WQBL, effluent water quality based limit  
ZID, Zone of Initial Dilution in % effluent  
MZ, Mixing Zone in % effluent

Formulas used in aquatic life water quality screen (dilution type WLA):

Streams:

$$\text{Dilution Factor} = \frac{Q_e}{(Q_{rc} \times 0.6463 \times F_s + Q_e)}$$

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$$\text{WLA a,c,h} = \frac{\text{Cr}}{\text{Dilution Factor}} - \frac{(\text{Fs} \times \text{Qrc} \times 0.6463 \times \text{Cu})}{\text{Qe}}$$

Static water bodies (in the absence of a site specific dilution):

Discharge from a pipe:

Discharge from a canal:

$$\text{Critical Dilution} = \frac{(2.8) \text{ Pw } n^{1/2}}{\text{Pf}}$$

$$\text{Critical Dilution} = \frac{(2.38) (\text{Pw}^{1/2})}{(\text{Pf})^{1/2}}$$

$$\text{WLA} = \frac{(\text{Cr}-\text{Cu}) \text{ Pf}}{(2.8) \text{ Pw } n^{1/2}}$$

$$\text{WLA} = \frac{(\text{Cr}-\text{Cu}) \text{ Pf}^{1/2}}{2.38 \text{ Pw}^{1/2}}$$

Formulas used in human health water quality screen, human health non-carcinogens (dilution type WLA):

Streams:

$$\text{Dilution Factor} = \frac{\text{Qe}}{(\text{Qrc} \times 0.6463 + \text{Qe})}$$

$$\text{WLA a,c,h} = \frac{\text{Cr}}{\text{Dilution Factor}} - \frac{(\text{Qrc} \times 0.6463 \times \text{Cu})}{\text{Qe}}$$

Formulas used in human health water quality screen, human health carcinogens (dilution type WLA):

$$\text{Dilution Factor} = \frac{\text{Qe}}{(\text{Qrh} \times 0.6463 + \text{Qe})}$$

$$\text{WLA a,c,h} = \frac{\text{Cr}}{\text{Dilution Factor}} - \frac{(\text{Qrh} \times 0.6463 \times \text{Cu})}{\text{Qe}}$$

Static water bodies in the absence of a site specific dilution (human health carcinogens and human health non-carcinogens):

Discharge from a pipe:

Discharge from a canal:

$$\text{Critical Dilution} = \frac{(2.8) \text{ Pw } n^{1/2}}{\text{Pf}}$$

$$\text{Critical Dilution} = \frac{(2.38) (\text{Pw}^{1/2})}{(\text{Pf})^{1/2}}$$

$$\text{WLA} = \frac{(\text{Cr}-\text{Cu}) \text{ Pf}^*}{(2.8) \text{ Pw } n^{1/2}}$$

$$\text{WLA} = \frac{(\text{Cr}-\text{Cu}) \text{ Pf}^{1/2*}}{2.38 \text{ Pw}^{1/2}}$$

\* Pf is set equal to the mixing zone distance specified in LAC 33:IX.1115 for the static water body type, i.e., lake, estuary, Gulf of Mexico, etc.

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If a site specific dilution is used, WLA are calculated by subtracting Cu from Cr and dividing by the site specific dilution for human health and aquatic life criteria.

$$WLA = \frac{(Cr - Cu)}{\text{site specific dilution}}$$

## Longterm Average Calculations:

$$LTAA = WLAa \times 0.32$$

$$LTAc = WLAc \times 0.53$$

$$LTAh = WLAh$$

## WQBL Calculations:

Select most limiting LTA to calculate daily max and monthly avg WQBL

If aquatic life LTA is more limiting:

$$\text{Daily Maximum} = \text{Min}(LTAA, LTAc) \times 3.11$$

$$\text{Monthly Average} = \text{Min}(LTAc, LTAh) \times 1.31$$

If human health LTA is more limiting:

$$\text{Daily Maximum} = LTAh \times 2.38$$

$$\text{Monthly Average} = LTAh$$

## Mass Balance Formulas:

$$\text{mass (lbs/day)}: (\text{ug/L}) \times 1/1000 \times (\text{flow, MGD}) \times 8.34 = \text{lbs/day}$$

$$\text{concentration(ug/L)}: \frac{\text{lbs/day}}{(\text{flow, MGD}) \times 8.34 \times 1/1000} = \text{ug/L}$$

The following is an explanation of the references in the spreadsheet.

- (\*1) Parameter being screened.
- (\*2) Instream concentration for the parameter being screened in ug/L. In the absence of accurate supporting data, the instream concentration is assumed to be zero (0).
- (\*3) Monthly average effluent or technology value in concentration units of ug/L or mass units of lbs/day. Units determined on a case-by-case basis as appropriate to the particular situation.
- (\*4) Daily maximum technology value in concentration units of ug/L or mass units of lbs/day. Units determined on a case-by-case basis as appropriate to the particular situation.
- (\*5) Minimum analytical Quantification Levels (MQL's). Established in a letter dated January 27, 1994 from Wren Stenger of EPA Region 6 to Kilren Vidrine of LDEQ and from the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". The applicant must test for the parameter at a level at least as sensitive as the specified MQL. If this is not done, the MQL becomes the application value for screening purposes if the pollutant is suspected to be present

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on-site and/or in the waste stream. Units are in ug/l or lbs/day depending on the units of the effluent data.

- (\*6) States whether effluent data is based on 95th percentile estimation. A "1" indicates that a 95th percentile approximation is being used, a "0" indicates that no 95th percentile approximation is being used.
- (\*7) 95th percentile approximation multiplier (2.13). The constant, 2.13, was established in memorandum of understanding dated October 8, 1991 from Jack Ferguson of Region 6 to Jesse Chang of LDEQ and included in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". This value is screened against effluent Water Quality Based Limits established in columns (\*18) - (\*21). Units are in ug/l or lbs/day depending on the units of the measured effluent data.
- (\*8) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, freshwater (FW) or marine water (MW) (whichever is applicable) aquatic life protection, acute criteria. Units are specified. Some metals are hardness dependent. The hardness of the receiving stream shall generally be used, however a flow weighted hardness may be determined in site-specific situations. Dissolved metals are converted to Total metals using partition coefficients in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Similar to hardness, the TSS of the receiving stream shall generally be used, however, a flow weighted TSS may be determined in site-specific situations.

Hardness Dependent Criteria:

<u>Metal</u>	<u>Formula</u>
Cadmium	$e^{(1.1280(\ln(\text{hardness})) - 1.6774)}$
Chromium III	$e^{(0.8190(\ln(\text{hardness})) + 3.6880)}$
Copper	$e^{(0.9422(\ln(\text{hardness})) - 1.3884)}$
Lead	$e^{(1.2730(\ln(\text{hardness})) - 1.4600)}$
Nickel	$e^{(0.8460(\ln(\text{hardness})) + 3.3612)}$
Zinc	$e^{(0.8473(\ln(\text{hardness})) + 0.8604)}$

Dissolved to Total Metal Multipliers for Freshwater Streams (TSS dependent):

<u>Metal</u>	<u>Multiplier</u>
Arsenic	$1 + 0.48 \times \text{TSS}^{-0.73} \times \text{TSS}$
Cadmium	$1 + 4.00 \times \text{TSS}^{-1.13} \times \text{TSS}$
Chromium III	$1 + 3.36 \times \text{TSS}^{-0.93} \times \text{TSS}$
Copper	$1 + 1.04 \times \text{TSS}^{-0.74} \times \text{TSS}$
Lead	$1 + 2.80 \times \text{TSS}^{-0.80} \times \text{TSS}$
Mercury	$1 + 2.90 \times \text{TSS}^{-1.14} \times \text{TSS}$
Nickel	$1 + 0.49 \times \text{TSS}^{-0.57} \times \text{TSS}$
Zinc	$1 + 1.25 \times \text{TSS}^{-0.70} \times \text{TSS}$

Dissolved to Total Metal Multipliers for Marine Environments (TSS dependent):

<u>Metal</u>	<u>Multiplier</u>
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Copper	$1 + (10^{4.86} \times \text{TSS}^{-0.72} \times \text{TSS}) \times 10^{-6}$
Lead	$1 + (10^{6.06} \times \text{TSS}^{-0.85} \times \text{TSS}) \times 10^{-6}$
Zinc	$1 + (10^{5.36} \times \text{TSS}^{-0.52} \times \text{TSS}) \times 10^{-6}$

If a metal does not have multiplier listed above, then the dissolved to total metal multiplier shall be 1.

- (\*9) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, freshwater (FW) or marine water (MW) (whichever is applicable) aquatic life protection, chronic criteria. Units are specified. Some metals are hardness dependent. The hardness of the receiving stream shall generally be used, however a flow weighted hardness may be determined in site-specific situations. Dissolved metals are converted to Total metals using partition coefficients in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Similar to hardness, the TSS of the receiving stream shall generally be used, however, a flow weighted TSS may be determined in site-specific situations.

Hardness dependent criteria:

<u>Metal</u>	<u>Formula</u>
Cadmium	$e^{(0.7852(\ln(\text{hardness})) - 3.4900)}$
Chromium III	$e^{(0.8473(\ln(\text{hardness})) + 0.7614)}$
Copper	$e^{(0.8545(\ln(\text{hardness})) - 1.3860)}$
Lead	$e^{(1.2730(\ln(\text{hardness})) - 4.7050)}$
Nickel	$e^{(0.8460(\ln(\text{hardness})) + 1.1645)}$
Zinc	$e^{(0.8473(\ln(\text{hardness})) + 0.7614)}$

Dissolved to total metal multiplier formulas are the same as (\*8), acute numerical criteria for aquatic life protection.

- (\*10) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, human health protection, drinking water supply (HHDW), non-drinking water supply criteria (HHNDW), or human health non-primary contact recreation (HHNPCR) (whichever is applicable). A DEQ and EPA approved Use Attainability Analysis is required before HHNPCR is used, e.g., Monte Sano Bayou. Units are specified.
- (\*11) C if screened and carcinogenic. If a parameter is being screened and is carcinogenic a "C" will appear in this column.
- (\*12) Wasteload Allocation for acute aquatic criteria (WLAA). Dilution type WLAA is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the acute aquatic numerical criteria for that parameter. Units are in ug/L.

Dilution WLAA formulas for streams:

$$\text{WLAA} = (\text{Cr}/\text{Dilution Factor}) - \frac{(\text{Fs} \times \text{Orc} \times 0.6463 \times \text{Cu})}{\text{Qe}}$$

Dilution WLAA formulas for static water bodies:

$$\text{WLAA} = (\text{Cr}-\text{Cu})/\text{Dilution Factor}$$

Cr represents aquatic acute numerical criteria from column (\*8).

If Cu data is unavailable or inadequate, assume Cu=0.

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If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

- (\*13) Wasteload Allocation for chronic aquatic criteria (WLAc). Dilution type WLAc is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the chronic aquatic numerical criteria for that parameter. Units are in ug/L.

Dilution WLAc formula:

$$WLAc = (Cr/Dilution\ Factor) - \frac{(Fs \times Qrc \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAc formulas for static water bodies:

$$WLAc = (Cr-Cu)/Dilution\ Factor)$$

Cr represents aquatic chronic numerical criteria from column (\*9).

If Cu data is unavailable or inadequate, assume Cu=0.

If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

- (\*14) Wasteload Allocation for human health criteria (WLAh). Dilution type WLAh is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the human health numerical criteria for that parameter. Units are in ug/L. Dilution

WLAh formula:

$$WLAh = (Cr/Dilution\ Factor) - \frac{(Fs \times Qrc, Qrh \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAh formulas for static water bodies:

$$WLAh = (Cr-Cu)/Dilution\ Factor)$$

Cr represents human health numerical criteria from column (\*10).

If Cu data is unavailable or inadequate, assume Cu=0.

If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

- (\*15) Long Term Average for aquatic numerical criteria (LTAA). WLAa numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 0.32. WLAa X 0.32 = LTAA.

If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

- (\*16) Long Term Average for chronic numerical criteria (LTAc). WLAc numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 0.53. WLAc X 0.53 = LTAc.

If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

- (\*17) Long Term Average for human health numerical criteria (LTAh). WLAh numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 1. WLAc X 1 = LTAh.

If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.



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- (\*18) Limiting Acute, Chronic or Human Health LTA's. The most limiting LTA is placed in this column. Units are consistent with the WLA calculation. If standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then the type of limit, Aquatic or Human Health (HH), is indicated.
- (\*19) End of pipe Water Quality Based Limit (WQBL) monthly average in terms of concentration, ug/L. If aquatic life criteria was the most limiting LTA then the limiting LTA is multiplied by 1.31 to determine the average WQBL ( $LTA_{\text{limiting aquatic}} \times 1.31 = WQBL_{\text{monthly average}}$ ). If human health criteria was the most limiting criteria then  $LTA_h = WQBL_{\text{monthly average}}$ . If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then either the human health criteria or the chronic aquatic life criteria shall appear in this column depending on which is more limiting.
- (\*20) End of pipe Water Quality Based Limit (WQBL) daily maximum in terms of concentration, ug/L. If aquatic life criteria was the most limiting LTA then the limiting LTA is multiplied by 3.11 to determine the daily maximum WQBL ( $LTA_{\text{limiting aquatic}} \times 3.11 = WQBL_{\text{daily max}}$ ). If human health criteria was the most limiting criteria then  $LTA_h$  is multiplied by 2.38 to determine the daily maximum WQBL ( $LTA_{\text{limiting aquatic}} \times 2.38 = WQBL_{\text{daily max}}$ ). If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then either the human health criteria or the acute aquatic life criteria shall appear in this column depending on which is more limiting.
- (\*21) End of pipe Water Quality Based Limit (WQBL) monthly average in terms of mass, lbs/day. The mass limit is determined by using the mass balance equations above.  $\text{Monthly average WQBL, ug/l/1000} \times \text{facility flow, MGD} \times 8.34 = \text{monthly average WQBL, lbs/day}$ .
- (\*22) End of pipe Water Quality Based Limit (WQBL) monthly average in terms of mass, lbs/day. Mass limit is determined by using the mass balance equations above.  $\text{Daily maximum WQBL, ug/l/1000} \times \text{facility flow, MGD} \times 8.34 = \text{daily maximum WQBL, lbs/day}$ .
- (\*23) Indicates whether the screened effluent value(s) need water quality based limits for the parameter of concern. A "yes" indicates that a water quality based limit is needed in the permit; a "no" indicates the reverse.

## Appendix C

Fact Sheet Appendix C  
Monitoring ReductionLPDES Permit LA0003301  
Page 1Internal Outfall 111 (previously Internal Outfall 1081 in May 2006 Application)**Monitoring Frequency Reduction for Internal Outfall 111**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	152	1/Month	2	1	1/Quarter
TSS	253	1/Month	16	6	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.
- Proposed Internal Outfall 111 (1081) replaces current Internal Outfalls 1031, 1041, 1051, 1061, and 1071. These internal outfalls will become sampling locations. However, the sum of the loading values represented above correspond to the sum of the mass limits for BOD<sub>5</sub> and TSS at Internal Outfalls 1031, 1041, and 1051 from the current permit.

Internal Outfall 121 (previously Internal Outfall 931)**Monitoring Frequency Reduction for Internal Outfall 121**

Parameter	Current Permit		Long Term Average DMR (ug/l)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	30	1/Month	7.67	25.6	1/Quarter
TSS	51	1/Month	14.4	28.2	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 201 (previously Internal Outfall 521)**Monitoring Frequency Reduction for Internal Outfall 201**

Parameter	Current Permit		Long Term Average DMR (ug/l)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ug/l)	Monitoring Frequency			
1,2-Dichloroethane	574	1/day	60	10	1/week
Tetrachloroethylene	164	1/day	76	46	1/week

Fact Sheet Appendix C  
Monitoring ReductionLPDES Permit LA0003301  
Page 2Internal Outfall 311 (previously Internal Outfall 531)**Monitoring Frequency Reduction for Internal Outfall 311**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	456	1/Month	78.2	17.1	1/Quarter
TSS	767	1/Month	5779.3	753.5	1/Month
Carbon Tetrachloride	2.12	1/Week	0.75	35.2	2/Month
Chloroform	1.66	1/Week	1.48	88.9	1/Week
1,1 Dichloroethane	0.33	1/Week	0	0	1/Month
1,2 Dichloroethane	2.69	1/Week	0	0	1/Month
1,2 Dichloropropane	2.93	1/Week	0.24	8.2	1/Month
Tetrachloroethylene	0.78	1/Week	0.044	5.7	1/Month
Vinyl Chloride	1.45	1/Week	0	0	1/Month

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 411 (previously Internal Outfall 301)

The monitoring frequencies for all parameters have been set to 1/month for all parameters.

This internal outfall replaces Internal Outfalls 301 and 641 from the current permit.

Internal Outfall 421 (previously Internal Outfall 911)**Monitoring Frequency Reduction for Internal Outfall 421**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	199	1/Month	6.88	3	1/Quarter
TSS	331	1/Month	81.4	25	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Fact Sheet Appendix C  
Monitoring ReductionLPDES Permit LA0003301  
Page 3Internal Outfall 511 (previously Internal Outfall 2501)**Monitoring Frequency Reduction for Internal Outfall 511**

Parameter	Current Permit		Long Term Average DMR (mg/l)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (mg/l)	Monitoring Frequency			
BOD <sub>5</sub>	32	1/Month	3	9	1/Quarter
TSS	48	1/Month	8	20	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 521 (previously Internal Outfall 1521)**Monitoring Frequency Reduction for Internal Outfall 521**

Parameter	Current Permit		Long Term Average DMR (mg/l)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (mg/l)	Monitoring Frequency			
BOD <sub>5</sub>	34	1/Month	5	15	1/Quarter
TSS	49	1/Month	21	43	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 541 (previously Internal Outfall 1531)**Monitoring Frequency Reduction for Internal Outfall 541**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	23	1/Month	0.536	2	1/Quarter
TSS	33	1/Month	0.449	1	1/Quarter
Chloroethane	0.07	1/Week	0.032	46	1/Month
Methyl Chloride	1.11	1/Week	0.0356	3	1/Month

- All other parameters were below detection and set to a frequency of 1/year.

Fact Sheet Appendix C  
Monitoring ReductionLPDES Permit LA0003301  
Page 4Internal Outfall 551 (previously Internal Outfall 741)**Monitoring Frequency Reduction for Internal Outfall 551**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	721	1/Week	17	2	2/Month
TSS	1063	1/Week	682	64	2/Month

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 611 (previously Internal Outfall 1711)**Monitoring Frequency Reduction for Internal Outfall 611**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	914	1/Month	274	30	1/Quarter
TSS	999	1/Month	267	27	1/Quarter
Chloroform	2.06	1/Week	0.52	25	1/Month
1,2 Dichloroethane	3.35	1/Week	0.17	5	1/Month

- All other parameters were below detection and set to a frequency of 1/year.

Internal Outfall 621 (previously Internal Outfall 2241)**Monitoring Frequency Reduction for Internal Outfall 621**

Parameter	Current Permit		Long Term Average DMR (mg/l)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (mg/l)	Monitoring Frequency			
BOD <sub>5</sub>	30	1/Month	2	7	1/Quarter
TSS	46	1/Month	18	39	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Fact Sheet Appendix C  
Monitoring ReductionLPDES Permit LA0003301  
Page 5Internal Outfall 631 (previously Internal Outfall 2001)**Monitoring Frequency Reduction for Internal Outfall 631**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	5185	1/Day	2530	49	3/Week
TSS	7793	1/Day	4382	56	4/Week
Chloroform	3.42	2/Week	2	58	1/Week
1,2 Dichloroethane	11.07	2/Week	3.86	35	2/Month
1,2 Dichloropropane	24.92	2/Week	6.87	28	2/Month
1,3 Dichloropropylene	4.72	2/Week	2.61	55	1/Week
Methyl Chloride	14	2/Week	5.56	40	2/Month
Methylene Chloride	6.51	2/Week	0.02	0	1/Month

- All other parameters were below detection and set to a frequency of 1/year.

This internal outfall replaces Internal Outfalls 231, 471, 491, and 2001 from the current permit.

Internal Outfall 641 (previously Internal Outfall 3121)**Monitoring Frequency Reduction for Internal Outfall 641**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
BOD <sub>5</sub>	52	1/Month	5.5	10.6	1/Quarter
TSS	86	1/Month	23.7	27.5	1/Quarter

- All other parameters were below detection and set to a frequency of 1/year.

Fact Sheet Appendix C  
Monitoring Reduction

LPDES Permit LA0003301  
Page 6

Internal Outfall 651 (previously Internal Outfall 3001)

**Monitoring Frequency Reduction for Internal Outfall 651**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
TOC	55	1/Month	12	22	1/Quarter

Outfall 002

**Monitoring Frequency Reduction for Outfall 002**

Parameter	Current Permit		Long Term Average DMR (ppd)	Ratio Long Term Average to Permit Limit %	Monitoring Frequency Reissued Permit
	Monthly Average (ppd)	Monitoring Frequency			
TOC	55	1/Month	6.5	12	1/Quarter



## Appendix D

## FRESHWATER ACUTE

# BIOMONITORING FREQUENCY RECOMMENDATION AND RATIONALE FOR ADDITIONAL REQUIREMENTS

Permit Number: LA0003301  
 Facility Name: The Dow Chemical Company, Louisiana Operations  
 Previous Critical Dilution: 0.17%  
 Proposed Critical Dilution: 19% (10:1 ACR)  
 Date of Review: 08/24/06; revised 7/09/09  
 Name of Reviewer: Laura Thompson

## Recommended Frequency by Species:

*Pimephales promelas* (Fathead minnow): Once/Quarter<sup>1</sup>  
*Daphnia pulex* (water flea): Once/Quarter<sup>1</sup>

Recommended Dilution Series: 8%, 11%, 14%, 19%, and 26%

## Number of Tests Performed during previous 5 years by Species:

*Pimephales promelas* (Fathead minnow): 21  
*Daphnia pulex* (water flea): 21  
*Ceriodaphnia dubia* (water flea): N/A – Testing of species was not required

## Number of Failed Tests during previous 5 years by Species:

*Pimephales promelas* (Fathead minnow): No failures on file during the past 5 years  
*Daphnia pulex* (water flea): No failures on file during the past 5 years  
*Ceriodaphnia dubia* (water flea): N/A – Testing of species was not required

## Failed Test Dates during previous 5 years by Species:

*Pimephales promelas* (Fathead minnow): No failures on file during the past 5 years  
*Daphnia pulex* (water flea): No failures on file during the past 5 years  
*Ceriodaphnia dubia* (water flea): N/A – Testing of species was not required

Previous TRE Activities: N/A – No previous TRE Activities

<sup>1</sup> If there are no lethal effects demonstrated after the first year of quarterly testing, the permittee may certify fulfillment of the WET testing requirements in writing to the permitting authority. If granted, the biomonitoring frequency for the test species may be reduced to not less than once per year for the less sensitive species (usually *Pimephales promelas*) and not less than twice per year for the more sensitive species (usually *Daphnia pulex*). Upon expiration of the permit, the biomonitoring frequency for both species shall revert to once per quarter until the permit is re-issued.

## FRESHWATER ACUTE

## Additional Requirements (including WET Limits) Rationale / Comments Concerning Permitting:

The Dow Chemical Company, Louisiana Operations owns and operates an industrial organic and inorganic chemical facility in Plaquemine, Iberville Parish, Louisiana. LPDES Permit LA0003301, effective March 1, 2002, contained freshwater acute biomonitoring as an effluent characteristic of Outfall 001 for *Daphnia pulex* and *Pimephales promelas*. The effluent series consisted of 0.07%, 0.10%, 0.13%, 0.17%, and 0.24% concentrations, with the 0.17% effluent concentration being defined as the critical dilution. The testing was to be performed quarterly for *Daphnia pulex* and *Pimephales promelas*. Data on file indicate that the permittee has complied with the biomonitoring requirements contained in LA0003301 with no failures from a toxicity test in the last five years.

It is recommended that freshwater acute biomonitoring continue to be an effluent characteristic of Outfall 001 (combined discharge of 597 mgd of process wastewaters, maintenance and utility wastewaters, stormwater, groundwater remediation water, water from fire-water testing, hydrostatic test wastewater, and once-through non-contact cooling water) in LA0003301. The effluent dilution series shall be 8%, 11%, 14%, 19%, and 26% concentrations, with the 19% effluent concentration being defined as the critical biomonitoring dilution (the 10:1 Acute-to-Chronic ratio has been implemented). If there are no significant lethal effects demonstrated at or below the critical dilution during the first four quarters of testing, the permittee may certify fulfillment of the WET testing requirements to the permitting authority and WET testing may be reduced to not less than once per six months for the more sensitive species (usually *Daphnia pulex*) and not less than once per year for the less sensitive species (usually *Pimephales promelas*) for the remainder of the life of the permit. Upon expiration of the permit, the monitoring frequency for both test species shall revert to once per quarter until the permit is re-issued.

This recommendation is in accordance with the LDEQ/OES Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, Water Quality Management Plan Volume 3. Version 6 (April 16, 2008), and the Best Professional Judgment (BPJ) of the reviewer.

## Appendix E

<b>The Dow Chemical Company</b> <b>Louisiana Operations</b> <b>LA0003301, AI 1409</b> <b>Outfall Consolidation Project</b>		
<b>Proposed Permit</b>	<b>2006 Application</b>	<b>2002 Permit</b>
Final Outfall 001	Final Outfall 001	Final Outfall 001 and Internal Outfalls 2921, 2931, 2941, 2951, and 7401
Internal Outfall 101	New Internal Outfall 112	Internal Outfalls 541, 1011, 2911, 2961, 2971, and 6201
Internal Outfall 111	New Internal Outfall 1081	Internal Outfalls 1031, 1041, 1051, 1061, and 1071
Internal Outfall 121	Internal Outfall 931	Internal Outfall 931
Internal Outfall 201	Internal Outfall 521	Internal Outfall 521
Internal Outfall 301	New Internal Outfall 114	Internal Outfalls 411, 421, 431, 441, 451, 461, 481, 511, and 3331
Internal Outfall 311	Internal Outfall 531	Internal Outfall 531
Internal Outfall 401	New Internal Outfall 115	Internal Outfalls 111, 331, 351, 361, 371, 381, 751, 1311, 1321, 1901, 3101, 3351, 3361,
Internal Outfall 411	Internal Outfall 301	Internal Outfalls 301 and 341
Internal Outfall 421	Internal Outfall 911	Internal Outfall 911
Internal Outfall 501	New Internal Outfall 116	Internal Outfalls 211, 251, 711, 811, 1411, 1551, 2511, 3911, 4031, 5811, 5821,
Internal Outfall 511	Internal Outfall 2501	Internal Outfall 2501
Internal Outfall 521	Internal Outfall 1521	Internal Outfall 1521
Internal Outfall 531	Internal Outfall 1561	Internal Outfall 1561
Internal Outfall 541	Internal Outfall 1531	Internal Outfall 1531
Internal Outfall 551	Internal Outfall 741	Internal Outfall 741
Internal Outfall 601	New Internal Outfall 117	Internal Outfalls 1731, 2231, and 3131
Internal Outfall 611	Internal Outfall 1711	Internal Outfall 1711
Internal Outfall 621	Internal Outfall 2241	Internal Outfall 2241
Internal Outfall 631	Internal Outfall 2001	Internal Outfall 231, 471, 491, and 2001
Internal Outfall 641	Internal Outfall 3121	Internal Outfall 3121
Internal Outfall 651	Internal Outfall 3001	Internal Outfall 3001
Final Outfall 002	Final Outfall 002	Final Outfall 002

Invoice No. \_\_\_\_\_

July 22, 2009

Page 1

## LOUISIANA WATER POLLUTION CONTROL FEE SYSTEM

## RATING WORKSHEET

PERMIT NO. LA0003301 AI NO: 1409 Activity No.: PER20060028

- 1.a. Company Name The Dow Chemical Company
- 1.b. Facility Name Louisiana Operations
2. Local Mailing Address Post Office Box 150  
Plaquemine, Louisiana 70765
3. Billing Address (If different) \_\_\_\_\_
- 4.a. Facility Location 21255 Louisiana Highway 1 in Plaquemine
- 4.b. Parish Iberville and West Baton Rouge
5. Facility Type organic chemical manufacturing plant
6. Products Produced \_\_\_\_\_
- 6.a. Raw materials stored or used \_\_\_\_\_
- 6.b. By-products produced \_\_\_\_\_
7. Primary SIC Code 2869 7.a. Other SIC Codes 2821, 2819, 2812, and 4911
8. Fac. Manager Sharon Cole 8.a. Telephone (225) 353-8000
9. Owner \_\_\_\_\_ 9.a. Telephone \_\_\_\_\_
10. Env. Contact Ed Keough 10.a. Telephone (985) 783-4107

11. State Permit No. \_\_\_\_\_

11.a. Date Issued \_\_\_\_\_

11.b. New \_\_\_\_\_ Modified \_\_\_\_\_

12. NPDES Permit No. LA0003301

12.a. Effective Date 03/01/02

12.b. Expiration Date 11/30/06

13. Number and Identification of Outfalls 001-treated process wastewaters, utility wastewaters, sanitary wastewater, and stormwater runoff and 002-utility wastewater and stormwater runoff
14. Number of Injection Wells N/A
15. Water Source(s) \_\_\_\_\_
16. Receiving Water(s) Mississippi River (Outfalls 001 and 002)
17. River Basin Mississippi River 18. Basin Segment No. 070301

TOTAL RATING POINTS ASSIGNED:

7117Federal Tax I. D. No.: N/Aal Initials of Rater

Invoice No. \_\_\_\_\_

## ANNUAL FEE RATING WORKSHEET - INDUSTRIAL

Page 2

PERMIT NO. LA0003301, AI No. 1409, PER20060028

## 1. FACILITY COMPLEXITY DESIGNATION

Primary SIC 2869

Complexity Designation = \_\_\_\_\_

Other SIC 2821, 2819, 2812

_____	I	( 0 points)
_____	II	(10 points)
_____	III	(20 points)
_____	IV	(30 points)
_____	V	(40 points)
<u>✓</u> _____	VI	(50 points)

COMPLEXITY DESIGNATION POINTS 50

## 2. FLOW VOLUME AND TYPE

## A. Wastewater Type I

Is total Daily Average Discharge greater than 400 mgd?

Yes, then points = 200

No, then

Points = 0.5 X Total Daily Average Discharge (mgd)

Points = 0.5 X \_\_\_\_\_ = \_\_\_\_\_

Total points = \_\_\_\_\_

## B. Wastewater Type II

Points = 10 X Total Daily Average Discharge (mgd)

Points = 10 X 597 = 5970Total points = 5970

## C. Wastewater Type III

Points = 2 X Total Daily Average Discharge (mgd)

Points = 2 X \_\_\_\_\_ = \_\_\_\_\_

Total points = 0FLOW VOLUME AND TYPE POINTS 5970

## 3. POLLUTANTS

## A. BOD or

Daily Average Load = \_\_\_\_\_

_____	≤ 50 lb/day	(0 points)
_____	> 50 - 500	(5 points)
_____	> 500 - 1000	(10 points)
_____	> 1000 - 3000	(20 points)
_____	> 3000 - 5000	(30 points)
_____	> 5000 lb/day	(calculate)

Points = 0.008 X Daily Average Load (lbs)

Points = 0.008 X 7885 = 63

COD or

Daily Average Load = \_\_\_\_\_

_____	≤ 100 lb/day	( 0 points)
_____	> 100 - 500	( 5 points)
_____	> 500 - 1000	(10 points)
_____	> 1000 - 5000	(20 points)
_____	> 5000 - 10000	(30 points)
_____	> 10000 lb/day	(calculate)

Points = 0.004 X Daily Average Load (lbs)

Points = 0.004 X 0 = 0BOD OR COD DEMAND POINTS 63  
(whichever is greater)

Invoice No. \_\_\_\_\_  
Page 3

## ANNUAL FEE RATING WORKSHEET - INDUSTRIAL

PERMIT NO. LA0003301, AI No. 1409, PER20060028

B. TSS  
Daily Average Load =

_____	≤ 100 lb/day	( 0 points)
_____	> 100 - 500	( 5 points)
_____	> 500 - 1000	(10 points)
_____	> 1000 - 5000	(20 points)
_____	> 5000 - 10000	(30 points)
_____	> 10000 lb/day	(calculate)

Points = 0.004 X Daily Average Load (lbs)

Points = 0.004 X 14828 = 59

TSS POINTS 59

C. TOXICS

Total Annual Discharge to Water = 91,949 (lbs)

Points = 0.01 X Annual discharge (lbs)

Points = 0.01 X 91,949 = 920

TOXIC POINTS 920

TOTAL POLLUTANT POINTS 1042

4. TEMPERATURE (HEAT LOAD)

Heat Load = Average Summer flow (mgd) X °T X 0.00834

where °T = Permit Limit (Max. Temp.) - 70°

Heat Load = 0 (mgd) X 0 X 0.00834 = 0 Billion BTU

Heat Load = 0 ≤ 4 billion BTU ( 0 points)

\_\_\_\_\_ > 4-20 billion BTU ( 5 points)

\_\_\_\_\_ > 20-100 billion BTU (10 points)

\_\_\_\_\_ > 100-200 billion BTU (15 points)

\_\_\_\_\_ > 200 billion BTU (20 points)

HEAT LOAD POINTS 0

5. POTENTIAL PUBLIC HEALTH IMPACTS

Is the receiving water to which the wastewater is discharged or a water body to which it is a tributary used as a drinking water supply source within 50 miles downstream?

\_\_\_\_\_ No (0 points)

✓ Yes, then . . . Complexity Designation

\_\_\_\_\_ I, II ( 0 points)

\_\_\_\_\_ III ( 5 points)

\_\_\_\_\_ IV (10 points)

\_\_\_\_\_ V (20 points)

✓ VI (30 points)

POTENTIAL PUBLIC HEALTH IMPACT POINTS 30

6. MAJOR/MINOR FACILITY DESIGNATION

Has your facility been designated a Major Facility by the administrative authority?

✓ Yes, then Points = 25

\_\_\_\_\_ No, then

were effluent limitations assigned to the discharge based on water quality factors in the receiving stream?

\_\_\_\_\_ No, then Points = 0

\_\_\_\_\_ Yes, then Points = 5

TOTAL MAJOR/MINOR POINTS 25

TOTAL RATING POINTS ASSIGNED 7117